federal register

MONDAY, OCTOBER 23, 1978
PART II

DEPARTMENT OF TRANSPORTATION

Coast Guard

■

VISUAL DISTRESS SIGNALS AND INDEPENDENT LABORATORY PROCEDURES AND STANDARDS FOR COAST GUARD APPROVED EQUIPMENT

[4910-14-M]

DEPARTMENT OF TRANSPORTATION

Coast Guard

[33 CFR Part 175]

[CGD 76-183]

VISUAL DISTRESS SIGNALS ON BOATS

Correction

AGENCY: Coast Guard, DOT.

ACTION: Correction.

SUMMARY: In FR Doc. 78-9470 appearing at page 15118 in the FEDERAL REGISTER of April 10, 1978, in § 175.110(a) on page 15122, the applicability was incorrectly stated as applying to any boat "carrying passengers," instead of "carrying six or less passengers". Section 175.110(a) is corrected to read as follows:

§ 175.110 Visual distress signals required.

(a) No person may use a boat 16 feet or more in length or any boat carrying six or less passengers unless visual distress signals suitable for day and night use as listed in § 175.130 or § 175.135, in the number required, are on board.

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EFFECTIVE DATE: October 23, 1978.

FOR FURTHER INFORMATION CONTACT:

Mr. David Gauthier, U.S. Coast Guard, Office of Boating Safety (G-BLC), Room 4308, Department of Transportation, Trans Point Building, 2100 Second Street SW., Washington, D.C. 20590, 202-426-4176.

Dated: October 11, 1978.

J. B. HAYES,
Admiral, U.S. Coast Guard
Commandant.

[FR Doc. 78-29476 Filed 10-20-78; 8:45 am]

[4910-14-M]

[46 CFR Parts 2 and 159]

[CGD 76-048]

EQUIPMENT AND MATERIAL SPECIFICATIONS

Proposed Approval Procedures, Production Inspection and Test Requirements, and Independent Laboratory Standards

AGENCY: Coast Guard, DOT.

ACTION: Proposed rules.

SUMMARY: This document propopses a new part containing approval procedures, production inspection and test procedures, and standards for accepting independent laboratories for testing certain equipment and materials requiring Coast Guard approval. This new part would establish the procedures that would eventually replace the Coast Guard factory inspection requirements in many specification regulations. The factory inspections required by those specifications divert the Coast Guard's field personnel from other duties. This proposed part in conjunction with changes to the specification regulations would place the responsibility for quality control on the manufacturer of the equipment or material. This would free some of the Coast Guard's limited field personnel for other duties with no change in the quality of the approved equipment or material.

This proposal should be considered in conjunction with Coast Guard document 76-048(b), Distress Signals, Signal Pistols, and Line-Throwing Appliances appearing at page 49350 of this issue of the FEDERAL REGISTER.

DATES: Comments must be received on or before December 22, 1978.

ADDRESSES: Comments should be submitted to Commandant (G-CMC/81), (CGD 76-048), U.S. Coast Guard, Washington, D.C. 20590. Comments will be available for examination at the Marine Safety Council (G-CMC/81), Room 8117, Department of Transportation, Nassif Building, 400 Seventh Street, SW, Washington, D.C. 20590.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert L. Markle, Office of Merchant Marine Safety (G-MMT-3/83), Room 8301, Department of Transportation, Nassif Building, 400 Seventh Street SW., Washington, D.C. 20590, 202-426-1444.

SUPPLEMENTARY INFORMATION: Interested persons are invited to participate in this proposed rulemaking by submitting written views, data, or arguments. Persons submitting comments should include their names and addresses, identify this notice (CGD 76-048) and the specific section of the proposal to which each comment applies, and give reasons for the comment. All comments received before the expiration of the comment period will be considered before final action is taken on this proposal. No public hearing is planned but one may be held at a time and place to be set in a later notice in the FEDERAL REGISTER if requested in writing by an interested person raising a genuine issue and desiring to comment orally at a public hearing.

DRAFTING INFORMATION

The principal persons involved in drafting this proposal are: Frank K. Thompson and Robert L. Markle, Project Managers, Office of Merchant Marine Safety, and Stanley M. Colby, Project Attorney, Office of the Chief Counsel.

BACKGROUND

The Coast Guard is planning to amend the approval requirements in many specification regulations to permit equipment and material under those regulations to be inspected and tested by an independent laboratory or, if the equipment or material requires little inspection or testing, by the manufacturer of that equipment or material. The goal of this plan is to reduce Coast Guard involvement in routine approval and production testing and place responsibility for product quality control on the manufacturer where feasible.

Over the years, the Coast Guard's marine inspection responsibilities increased while the number of personnel available to perform these inspections has not increased at a comparable rate. Among the many demands on Coast Guard marine inspection personnel are tests and inspections for approval of equipment and materials and production inspection and testing of approved equipment and materials. While the number of man-hours devoted to each individual test and inspection is not great, these approval and production tests and inspections, taken as a whole, create a significant drain on the Coast Guard's limited personnel resources.

The Coast Guard is reviewing the need for continued Government testing and inspection of certain equipment or material required to be carried on vessels. Private industry has the capability of conducting the tests and inspections involved and there are independent laboratories that are regularly engaged in this type of activity. In many cases there appears to be no need for continued Government involvement in the tests and inspections in order to maintain the desired level of quality control. The Coast Guard currently requires independent laboratory inspection of buoyant vests and other personal flotation devices, portable fire extinguishers, and marine sanitation devices. Under the program now being considered, the Coast Guard would extend similar requirements to other types of equipment, such as distress signals, line-throwing appliances, foam buoyant materials, and similar equipment. Certain other equipment would be approved on the basis of plans, samples, and data submitted by the manufacturer with the application for approval.

Production inspections and tests, under this program, would in many instances be performed by the manufacturer; however some types of equip-

ment and material would also have to be inspected or tested periodically by an independent laboratory. The Coast Guard would monitor production tests from reports submitted annually by the manufacturer.

The procedures under this program would eventually affect all the lifesaving equipment specifications in part 160 except those for lifeboats, including disengaging apparatus and hand-propelling gear, inflatable liferafts, winches, and davits, which may be considered by the Coast Guard at a later date. The planned procedures would also affect certain lifeboat equipment specifications in part 161, the fire-extinguishing equipment specifications in part 162, and the specifications for materials in part 164. Because of the number of subparts to be amended, the Coast Guard intends to carry out this proposal in increments. Proposed amendments to the approval procedures and tests for distress signals, signal pistols, and line-throwing appliances, are in another document (CGD 76-048b) that appears at page 49350 of this issue of the FEDERAL REGISTER. Proposed amendments to other equipment and material specifications will appear in future issues of the FEDERAL REGISTER.

This proposal has been reviewed under the Department of Transportation's "Policies and Procedures for Simplification, Analysis, and Review of Regulations" (43 FR 9582, Mar. 8, 1978). A draft evaluation has been prepared and placed in the public docket.

DISCUSSION OF PROPOSAL

Because the proposed approval requirements and procedures are essentially the same for all types of affected equipment and materials, proposed part 159 would contain the approval requirements and procedures for all the affected specifications. This proposed part sets forth:

a. The procedures by which the Coast Guard would approve each type of equipment and material affected by these proposed amendments.

b. The procedures for production inspection and testing by the manufacturer and by an independent laboratory.

c. The standards and the procedures under which the Coast Guard would accept or recognize an independent laboratory for performing or supervising inspections and tests.

In consideration of the foregoing, the Coast Guard proposes to amend chapter I of title 46, Code of Federal Regulations, as follows:

PART 2—VESSEL INSPECTIONS

1. In § 2.75-10, the words "Parts 160 to 164, inclusive" in paragraph (a), are changed to "Parts 159 through 164". Paragraph (b) is revised to reflect current procedures and addresses. as amended § 2.75-10 reads as follows:

§ 2.75-10 Procedures for obtaining approvals.

(a) The requirements for obtaining approvals of items covered by specifications and bearing offical Coast Guard approval numbers are set forth in parts 159 through 164 of this chapter. For other items, the requirements are described in the regulations governing such items.

(b) Unless otherwise specified, correspondence concerning approvals should be addressed to the Commandant (G-MMT-3/83), U.S. Coast Guard, Washington, D.C. 20590. When plans, drawings, test data, etc., are required to be submitted by the manufacturer, the material being transmitted with the application should be clearly identified.

2. In the first sentence of § 2.75-17(a), the words "33 CFR Parts 140 through 146 (artificial islands and fixed structures on the Outer Continental Shelf)" are changed to "33 CFR Chapter I". As amended, § 2.75-17(a) reads as follows:

§ 2.75-17 General policy regarding acceptance and use of industry specifications, standards, and codes.

(a) Certain equipment, materials, and installations required by various provisions of the navigation and vessel inspection laws and regulations in this chapter and in 33 CFR Chapter I have to be approved by the Commandant, U.S. Coast Guard, prior to their use. For many items of equipment, materials, and installations, the normal manufacturing practices are based on the use of certain industrial or Federal specifications, standards, and codes. However, it is realized that certain provisions are based on conditions normally found "ashore," rather than in the marine environment which may be experienced onboard vessels or on artificial islands and fixed structures. Industry specifications, standards, and codes are adopted and shall form a part of the regulations of this chapter to the extent specified in this subpart and in the more detailed regulations in parts 160 through 164 (Subchapter Q—Equipment Construction and Materials: Specifications and Approval) of this chapter. Unless specifically stated otherwise in the regulations, the current issue of the specifications, standards, or codes, including addenda or changes, described in the regulations shall be used. The current issue is that issue, including any addenda or changes, in effect on the date the work is contracted for, or, if no contract exists, the date fabrication is begun. The Commandant may authorize the use of an issue of an earlier or later date when circumstances warrant such action.

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SUBCHAPTER Q—EQUIPMENT, CONSTRUCTION, AND MATERIALS: SPECIFICATIONS AND APPROVAL

3. By changing the title of subchapter Q to "Equipment, Construction, and Materials: Specifications and Approval" as set forth above and by adding a new part 159 to read as follows:

PART 159—APPROVAL OF EQUIPMENT ND MATERIALS

Subpart 159.001—General

Sec.

159.001-1 Purpose.
159.001-3 Definitions.
159.001-5 Correspondence and applications.
159.001-7 Substituted procedures.

Subpart 159.005—Approval Procedures

159.005-1 Purpose.
159.005-3 Application for preapproval review.
159.005-5 Preapproval review: Contents of application.
159.005-7 Preapproval review: Coast Guard action.
159.005-9 Approval inspections and tests.
159.005-11 Approval inspection or test report: Contents.
159.005-12 Plans.
159.005-13 Equipment or material: Approval.
159.005-15 Approval of equipment or material: Suspensions, withdrawals, and terminations.

Subpart 159.007—Independent Laboratory: Production Inspections and Tests

159.007-1 Purpose.
159.007-3 Production inspections and tests: Independent laboratory's procedures.
159.007-5 Production inspections and tests: Application for acceptance.
159.007-7 Application for acceptance for production inspections and tests: Coast Guard action.
159.007-9 Production inspections and tests.
159.007-11 Production inspections and tests: Yearly report.
159.007-13 Production inspections and tests: Records.

Subpart 159.010—Independent Laboratory: Acceptance, Listing, and Termination

159.010-1 Purpose.
159.010-3 Independent laboratory: Standards for acceptance.
159.010-5 Independent laboratory: Application for acceptance.
159.010-7 Independent laboratory: Standards for listing.
159.010-9 Independent laboratory: Application for listing.
159.010-11 Independent laboratory: Listing in subpart.
159.010-15 Contracting inspections and tests or transferals to another laboratory or person.
159.010-17 Application and test plans: Changes.

159.010-19 Termination of acceptance or listing of a independent laboratory.
159.010-21 Termination of acceptance or listing: Procedure.

AUTHORITY: Sec. 1, 73 Stat. 475 (46 U.S.C. 481); sec. 201, 86 Stat 427, as amended (46 U.S.C. 391a); sec. 6(b)(1), 80 Stat 937 (49 U.S.C. 1655(b)(1)); 49 CFR 1.46 (b) and (n)(4).

Subpart 159.001—General

§ 159.001-1 Purpose.

(a) This part contains the procedures for the approval of equipment and materials when that equipment or material is inspected or tested by an independent laboratory or by the manufacturer of the equipment or material.

§ 159.001-3 Definitions.

(a) As used in this part:

(1) "Applicable subpart" means a subpart under which equipment or material is approved, or under which an independent laboratory is listed.

(2) "Listed laboratory" means an independent laboratory that has been listed in an applicable subpart under the provisions of § 159.010-11.

(3) "Test plan" means a description of the procedures by which an independent laboratory meets or exceeds the inspection and test requirements of an applicable subpart.

§ 159.001-5 Correspondence and applications.

(a) Unless otherwise specified, all correspondence and applications in connection with the approval and testing of equipment and materials shall be addressed to: Commandant (G-MMT-3/83), U.S. Coast Guard, Washington, D.C. 20590.

§ 159.001-7 Substituted procedures.

(a) The Commandant may substitute the procedures in this part for the procedures in any other part of this subchapter. Each person known to be affected by the substitution shall be informed that the procedures in this part apply.

Subpart 159.005—Approval Procedures

§ 159.005-1 Purpose.

(a) This subpart contains the procedures by which the Coast Guard approves equipment and materials under other subparts of this subchapter that require—

(1) Preapproval inspections and tests by an independent laboratory;

(2) Preapproval inspections and tests by the manufacturer; or

(3) No preapproval inspections or tests.

§ 159.005-3 Application for preapproval review.

(a) Each manufacturer of equipment or material who seeks Coast Guard approval under an applicable subpart must submit an application that meets § 159.005-5 to the Commandant unless—

(1) The subpart contains a list of independent laboratories;

(2) The subpart does not require Coast Guard review prior to testing; and

(3) The manufacturer meets the requirements of paragraph (b) of this section.

(b) If the applicable subpart contains a list of independent laboratories and does not specifically require Coast Guard review prior to testing, the manufacturer may have the tests performed by a listed laboratory and submit the report required by § 159.005-11 to the Commandant.

§ 159.005-5 Preapproval review: Contents of application.

(a) Each application must contain the following:

(1) The name and address of the manufacturer and the factory where the equipment or material is produced.

(2) One or more of the following as required by the applicable subpart:

(i) Two sets of general plans of the equipment or material.

(ii) Two sets of specifications of the equipment or material.

(iii) A sample of the equipment or material accompanied by a written description of its components.

(b) If the equipment or material is required by the subpart to be inspected and tested by an independent laboratory, the application must contain the following additional information:

(1) The name and address of a laboratory that meets § 159.010-3(a) and that is selected by the manufacturer to perform or supervise the inspections and tests.

(2) If the laboratory has not been accepted previously for inspecting and testing the manufacturer's equipment or material under the applicable subpart, the completed application under § 159.010-5(a).

§ 159.005-7 Preapproval review: Coast Guard action.

(a) If approval inspections and tests are required under the applicable subpart, the Commandant takes the following action:

(1) If the Commandant determines from the application that the equipment or material appears to meet the design requirements of an applicable subpart or appears to have equivalent performance characteristics, and that the laboratory meets § 159.010-3(a), the Commandant informs the manufacturer that the required approval inspections and tests may be conducted.

(2) If the Commandant determines from the application for approval that the equipment or material does not appear to meet the design requirements of an applicable subpart or does not appear to have equivalent performance characteristics, or that the laboratory does not meet § 159.010-3(a), the Commandant informs the manufacturer of the reason why the equipment or material is not acceptable for approval inspections and tests or why the laboratory is not accepted.

(b) If no approval inspections or tests are required under the applicable subpart, the Commandant—

(1) Takes action in accordance with § 159.005-13; or

(2) Informs the manufacturer of additional information required before action under § 159.005-13 can be taken.

§ 159.005-9 Approval inspections and tests.

(a) Each manufacturer of equipment or material that is required to be subjected to approval inspections and tests must—

(1) If the applicable subpart requires the equipment or material to be inspected or tested, have the approval inspections or tests performed;

(2) If the applicable subpart requires the equipment or material to be inspected or tested by an independent laboratory, insure that a laboratory accepted by the Commandant performs or supervises the approval inspections or tests;

(3) Bear all costs of the approval inspections and tests;

(4) If requested, advise the Commandant of the time, date, and place of each approval inspection or test, or both, before the inspection or test is performed; and

(5) After completion of the approval inspections and tests, submit to the Commandant—

(i) A test report that meets § 159.005-11;

(ii) At least two sets of specifications of the material as inspected or tested or at least two sets of plans of the equipment as inspected or tested that meet § 159.005-12; and

(iii) A description of the quality control procedures that will be in effect during the production of the equipment or material.

§ 159.005-11 Approval inspection or test report: Contents.

(a) Each inspection or test report must contain the following:

(1) The name of the manufacturer.

(2) If the inspections or tests are performed or supervised by an independent laboratory, the name and address of the laboratory.

(3) The trade name and a brief description of the equipment or material inspected or tested.

(4) The time, date, and place of each approval inspection and test.

(5) The name and title of each person performing, supervising, and witnessing the approval inspections or tests.

(6) The performance data for each test required in the applicable subpart, including a description of each failure.

(7) A description or photographs of the procedures and apparatus used in the inspections or tests.

(8) At least one photograph that shows an overall view of the equipment or material submitted for approval and other photographs that show—

(i) Design details; and

(ii) Each occurance of damage or deformation to the equipment or material that occurred during the approval tests.

(b) Each inspection or test report must bear an attestation that the inspections or tests were conducted as required by the applicable subpart and that the report contains no known errors, omissions, or false statements. The attestation must be signed by:

(1) The manufacturer or manufacturer's representative, if the inspection or tests are conducted by the manufacturer; or

(2) The chief officer of the laboratory, or the chief officer's representative, if the inspection or tests were conducted by an independent laboratory.

NOTE.—A false representation on a report is a ground for suspension or withdrawal of approval of the equipment or material. A false representation is also punishable as a crime under 18 U.S.C. 1001.

§ 159.005-12 Plans.

(a) Each set of plans under § 159.005-9(a)(5)(ii) for equipment must include the following:

(1) An assembly drawing or general arrangement drawing.

(2) A description of each component of the equipment that includes the name, the manufacturer, and the part identification of each component in—

(i) A detail drawing;

(ii) A bill of material or parts list; or

(iii) A specification for that component.

(3) A list of the drawings and specifications in the set of plans, including each revision, and the date of that list.

(4) If a manufacturer's instructions or manual is required in the applicable subpart, a copy of the instructions or manual.

§ 159.005-13 Equipment or material: Approval.

(a) If from analysis of the material and data required to be submitted under this subpart, the Commandant determines that the equipment or material meets the applicable subpart, the Commandant—

(1) Approves the equipment or material;

(2) Issues a certificate of approval to the manufacturer under § 2.75-5 of this chapter;

(3) Retains one set of approved plans and returns all others to the manufacturer; and

(4) Publishes a notice of the approval in the FEDERAL REGISTER.

(b) If from analysis of the material and data submitted the Commandant determines that the equipment or material does not meet the applicable subpart, the Commandant informs the manufacturer of the reason why that equipment or material does not meet the subpart.

§ 159.005-15 Approval of equipment or material: Suspensions, withdrawals, and terminations.

(a) The Commandant suspends an approval issued under this subchapter in accordance with § 2.75-40 of this chapter, withdraws an approval issued under this subchapter in accordance with § 2.75-50(a) of this chapter, and terminates an approval issued under this subchapter in accordance with § 2.75-50(b) of this chapter.

Subpart 159.007—Independent Laboratory: Production Inspection and Tests

§ 159.007-1 Purpose.

(a) This subpart contains the procedures under which production inspections and tests of approved equipment or materials are to be performed under this subchapter.

§ 159.007-3 Production inspections and tests: Independent laboratory's procedures.

(a) The manufacturer may follow an independent laboratory's procedures for production inspections and tests if those procedures—

(1) Meet or exceed the production inspection and test requirements of the applicable subpart or are equivalent to those inspections and tests;

(2) Include labeling or marking the equipment or material when the equipment or material meets the inspection and test procedures of the laboratory; and

(3) Are accepted by the Commandant under § 159.007-7(b).

§ 159.007-5 Production inspections and tests: Application for acceptance.

(a) If the applicable subpart requires production inspections and tests by an independent laboratory, the manufacturer must insure that the laboratory selected for production inspections and tests has been accepted by the Commandant;

(b) The manufacturer must submit an application for acceptance that meets § 159.010-5(a) unless the laboratory—

(1) Is listed in the subpart; or

(2) Is accepted by the Commandant for approval inspections and tests of the equipment or material under § 159.005-7(a)(1).

(c) If the manufacturer wants to follow the laboratory's procedures for production inspections and tests instead of meeting the Coast Guard procedures under this subchapter, the application must contain a description of those procedures.

§ 159.007-7 Application for acceptance for production inspections and tests: Coast Guard action.

(a) From the information submitted with the application, the Commandant determines whether or not the laboratory is accepted for production inspections and tests. The Commandant informs the manufacturer of the results of this determination, if the Commandant does not accept a laboratory, the reason for the disapproval will be given.

(b) From the description of the laboratory's procedures for production inspections and tests, the Commandant determines whether or not those procedures are accepted. The Commandant informs the manufacturer of the results of this determination. If the Commandant does not accept the laboratory's procedures, the reasons why they are not accepted will be given.

§ 159.007-9 Production inspections and tests.

(a) If the applicable subpart requires the production inspections and tests to be performed or supervised by an independent laboratory, the manufacturer shall insure that all required production inspections and tests are performed or supervised by an independent laboratory accepted by the Commandant.

(b) If the applicable subpart does not require an independent laboratory to perform the production inspections and tests, the manufacturer shall have those inspections and tests performed.

(c) Unless alternative procedures have been accepted by the Commandant under § 159.007-3 each production inspection and test must be performed or supervised in accordance with the applicable subpart.

§ 159.007-11 Production inspections and tests: Yearly report.

(a) When the manufacturer uses the production inspection and test procedures in an applicable subpart he must submit a yearly report. The report is not required when inspection and test

procedures approved under § 159.007-3 are used.

(b) The report must include the following:

(1) A list of all inspections and test performed;

(2) A summary of the results of each group of inspections or tests:

(3) A detailed description of any test failures; and

(4) A statement whether or not all required tests were performed.

§ 159.007-13 Production inspections and tests: records.

(a) The manufacturer must have a completed record with the information under § 159.005-11 (a)(4) through (a)(7) for each production inspection and test.

(b) The manufacturer must retain each record under this section for at least 60 months after the month in which the inspection or test was conducted.

(c) The records must be made available for examination by the Commandant upon request.

Subpart 159.010—Independent Laboratory: Acceptance, Listing, and Termination

§ 159.010-1 Purpose.

(a) This subpart contains the following:

(1) The standards under which the Coast Guard accepts an independent laboratory that a manufacturer proposes to use.

(2) The standards and procedures under which a laboratory is listed in applicable subparts for tests required by that subpart.

(3) The circumstances under which the acceptance or listing of a laboratory is terminated.

§ 159.010-3 Independent laboratory: Standards for acceptance.

(a) To be accepted by the Coast Guard as an independent laboratory, a laboratory must—

(1) Be engaged, as a regular part of its business, in inspecting and testing equipment or material that is the same as or is similar to the equipment or material to be inspected and tested under the applicable subpart;

(2) Have the apparatus, facilities, personnel, and calibrated instruments that are necessary to inspect and test the equipment or material under the applicable subpart;

(3) Not be owned or controlled by—

(i) The manufacturer of the equipment or material to be inspected or tested under this subchapter or any manufacturer of similar equipment or material;

(ii) A vendor of the equipment or material to be inspected or tested under this subchapter or a vendor of similar equipment or material; or

(iii) A supplier of materials to the manufacturer;

(4) Not be dependent on Coast Guard acceptance under this subchapter to remain in business; and

(5) Not advertise or promote the manufacturer's equipment or material that the laboratory inspects and tests under this subchapter.

§ 159.010-5 Independent laboratory: Application for acceptance.

(a) Each application for acceptance of a laboratory must contain the following:

(1) The name and address of the laboratory, its subsidiaries, and its divisions.

(2) The name, title, address, and principal business activity of each of the laboratory's officers and directors, and the name, address, and principal business activity of each person, company, or corporation that owns at least 3-percent interest in the laboratory or in a company or corporation that controls the laboratory.

(3) A list of the equipment or material that the laboratory would inspect or test, or both, under this subchapter.

(4) A description of the laboratory's experience and its qualifications for conducting the inspections and tests required in the applicable subpart.

(5) A description of the apparatus and facilities available to the laboratory for conducting those inspections and tests.

(6) The qualifications of personnel who are to perform, supervise, or witness those inspections and tests.

(7) A description of the laboratory's instrument calibration program.

(8) A statement, signed by the chief officer of the laboratory or the chief officer's representative, that an official representative of the Coast Guard is allowed access to the facility to verify the information submitted in the application or to witness tests.

§ 159.010-7 Independent laboratory: Standards for listing.

(a) To be listed as an independent laboratory under an applicable subpart, a laboratory must—

(1) Meet § 159.010-3;

(2) Have a test plan that is accepted by the Commandant under § 159.010-11(a); and

(3) Agree to perform or supervise approval or production inspections or tests under that subpart upon request from a manufacturer, however a laboratory may limit the area it serves.

§ 159.010-9 Independent laboratory: Application for listing.

(a) A laboratory that wants to be listed in one or more applicable subparts must submit to the Commandant an application that contains the information required by § 159.010-5, and that includes—

(1) The subparts under which it wants to be listed;

(2) Its test plans; and

(3) A statement of any limitations on the availability of the laboratory' service.

§ 159.010-11 Independent laboratory: Listing in subpart.

(a) From the application, the Commandant determines whether or not the laboratory meets § 159.010-7. If it meets these standards, the laboratory is added to the list in the applicable subpart. If it does not meet these standards, the Commandant informs the laboratory of the reasons why it is not added to the list.

§ 159.010-15 Contracting inspections and tests or transferals to another laboratory or person.

(a) No independent laboratory may contract or transfer to another person or laboratory the performance or supervision of inspections or tests, or both, required under an applicable subpart for which it is accepted or listed unless—

(1) A request in writing regarding the contract or transfer is submitted to the Commandant before the contract is executed or the transfer is completed; and

(2) The Commandant notifies the laboratory in writing that the contract or the transfer is allowed.

§ 159.010-17 Application and test plans: Changes.

(a) If any of the information submitted under § 159.010-5(a) or § 159.010-9(a) changes, a notification in writing of each change must be submitted to the Commandant within 30 days after the change has occurred.

(b) If an independent laboratory wants to change its test plan, the proposed changes must be submitted to the Commandant. The Commandant notifies the laboratory if the changed test plan is accepted. If the changed test plan is not accepted, the Commandant informs the laboratory of the reasons why the change test plan is not accepted.

§ 159.010-19 Termination of acceptance or listing of a independent laboratory.

(a) The acceptance or listing of a laboratory terminates if the laboratory—

(1) Requests termination; or

(2) Is no longer in business.

(b) The acceptance of a laboratory may be terminated by the Commandant if the laboratory—

(1) Fails to perform or supervise an inspection or test, or both, as required in an applicable subpart;

(2) Changes its test plan without Coast Guard acceptance;

(3) Attests to the lack of errors, omissions, or false statements of an approval test report that contains errors, omissions, or false statements;

(4) Does not meet § 159.010-3(a); or

(5) Unless allowed by the Commandant, contracts or transfers the performance or supervision of required inspections or tests, or both, to another laboratory or person.

(c) A laboratory is removed from the list published in an applicable subpart if the laboratory—

(1) Is no longer accepted by the Commandant; or

(2) Unreasonably refuses a request from a manufacture to perform or supervise an approval or production inspection or test.

§ 159.010-21 Termination of acceptance or listing: Procedure.

(a) Whenever evidence is received that there exists a basis for termination of acceptance or listing of an independent laboratory under § 159.010-19 (b) or (c), the Commandant notifies the laboratory of the specific reasons for considering termination. If the deficiency could materially effect the validity of the approval issued under an applicable subpart, the Commandant may immediately suspend the acceptance of the laboratory and may direct the holder of the certificate of approval to cease claiming that the items tested or inspected by the laboratory are Coast Guard approved, pending a final decision in the matter. The Commandant may direct an investigation into the matter.

(b) Within 30 days after receipt of notice of the basis for considering termination, the laboratory may provide the Commandant evidence or arguments why acceptance or listing should continue. After consideration of all available material on the matter, the Commandant informs the laboratory, in writing, of this decision. Any person holding a certificate of approval affected by the decision is also notified of the decision.

(Sec. 1, 73 Stat. 475 (46 U.S.C. 481); sec. 201, 86 Stat. 427, as amended (46 U.S.C. 391a); sec. 6(b)(1), 80 Stat. 937 (49 U.S.C. 1655(b)(1)); 49 CFR 1.46 (b) and (n)(4).)

NOTE.—The Coast Guard has determined that this document does not contain a major proposal requiring the preparation of an economic impact statement under Executive Order 11821, as amended, and OMB Circular A-107.

Dated: October 11, 1978.

J. B. HAYES,
Admiral, U.S. Coast Guard
Commandant.

[FR Doc. 78-29477 Filed 10-20-78; 8:45 am]

[4910-14-M]

[46 CFR Part 160]

[CGD 76-048a]

DISTRESS SIGNALS, SIGNAL PISTOLS, AND LINE-THROWING APPLIANCES

Proposed Specification and Tests

AGENCY: Coast Guard, DOT.

ACTION: Proposed rules.

SUMMARY: The Coast Guard is considering amending the specifications for pyrotechnic distress signals, signal pistols for flare-type distress signals, and line-throwing appliances by adding a new technical test to measure flare fire exposure, amending the marking and labeling requirements, changing certain technical specifications relating to signal pistol chamber diameter, line diameter and strength, to specify dimensions in SI metric units, and adding a new requirement to label pyrotechnic distress signals with an expiration date. The amendments are necessary to update the requirements to reflect current standards, to change marking to reflect changes in USCG inspection procedures, to inform the user of the service life of pyrotechnic signals and to include a new fire test necessitated by use of distress flare signals on recreational boats. This proposal should be considered in conjunction with the proposed visual distress signals for boats (CGD 76-183a) contained in the notice appearing on page 49354 of this issue of the FEDERAL REGISTER.

DATES: Comments must be received on or before December 22, 1978.

ADDRESSES: Comments should be submitted to Commandant (G-CMC/81) (CGD 76-048a), U.S. Coast Guard, Washington, D.C. 20590. Comments will be available for examination at the Marine Safety Council (G-CMC/81), Room 8117, Department of Transportation, Nassif Building, 400 Seventh Street SW., Washington, D.C. 20590.

FOR FURTHER INFORMATION CONTACT:

Mr. Robert Markle, Office of Merchant Marine Safety (G-MMT/83), Room 8301, Department of Transportation, Nassif Building, 400 Seventh Street SW., Washington, D.C. 20590, 202-426-1444.

SUPPLEMENTARY INFORMATION: Interested persons are invited to participate in this proposed rulemaking by submitting written views, data, or arguments. Persons submitting comments should include their name and address, identify this notice (CGD 76-048a) and the specific section of the proposal to which the comment applies, and give the reasons for the comment. The proposal may be changed in light of comments received. All comments received before the expiration of the comment period will be considered before final action is taken on this proposal. No public hearing is planned but one may be held at a time and place to be set in a later notice in the FEDERAL REGISTER if requested in writing by an interested person raising a genuine issue and desiring to comment orally at a public hearing.

DRAFTING INFORMATION

The principal persons involved in drafting this proposal are: Robert L. Markle, Project Manager, Office of Merchant Marine Safety, and Stanley M. Colby, Project Attorney, Office of the Chief Counsel.

DISCUSSION OF PROPOSAL

The regulations that would be amended as a result of this proposal are:

46 CFR Subpart 160.021—Signals, Distress, Hand Red Flare, for Merchant Vessels.

46 CFR Subpart 160.022—Signals, Distress, Floating Orange Smoke (5 Minutes), for Merchant Vessels.

46 CFR Subpart 160.023—Signals, Distress, Combination Flare and Smoke, Hand, for Merchant Vessels.

46 CFR Subpart 160.024—Signals, Distress, Pistol-Projected Parachute Red Flare, for Merchant Vessels.

46 CFR Subpart 160.028—Signal Pistols for Parachute Red Flare Distress Signals for Merchant Vessels.

46 CFR Subpart 160.031—Line-Throwing Appliance, Shoulder Gun Type (and Equipment), for Merchant Vessels.

46 CFR Subpart 160.036—Signals, Distress, Hand-Held Rocket-Propelled Parachute Red Flare, for Merchant Vessels.

46 CFR Subpart 160.037—Signals, Distress, Hand, Orange Smoke, for Merchant Vessels.

46 CFR Subpart 160.040—Line-Throwing Appliance, Impulse-Projected Rocket Type (and Equipment), for Merchant Vessels.

46 CFR Subpart 160.057—Signals, Distress, Floating Orange Smoke (15 Minutes), for Merchant Vessels.

Proposed changes to the regulations in these subparts are discussed in detail below.

A new technical test would be added to the hand-held flare specification subpart 160.021 to determine the tendency of the hot slag that drips from a burning flare to start a fire. The problem of introducing flares on recreational boats introduces the problem of fire exposure. To minimize this po-

tential, passing a slag ignition test would be required before signal approval.

Changes would be made to labeling and marking requirements of the above subparts to require that each distress signal be marked with the replacement date. This would be the date on which the service life of the signal, discussed below, expires. At present, the purchaser of a distress signal has to be aware that the signal must be replaced after 3 years. Under this proposal, the replacement date would be clearly shown. Also marking would indicate that floating orange smoke distress signals are approved for daytime use only.

The Coast Guard intends to include a note in the text of the final regulation to remind manufacturers of the need to comply with the Consumer Product Safety Commission marking requirements as follows:

NOTE.—See 16 CFR 1500.3(b)(14)(i) for the information required and 16 CFR 1500.14(b)(7)(vii) for the form prescribed for fireworks device labels.

In accordance with the policy established by the Metric Conversion Act of 1975 (89 Stat. 1007), all measurements in the subparts would be converted to SI (metric) units. English units would follow in parentheses for reference.

The marking requirements in each subpart for the line-throwing appliances would be revised to delete the requirements that the launcher must be marked with the Marine Inspection Office identification letters and the letters "USCG."

Signal pistols would no longer be limited for use with parachute distress signals on merchant vessels. The existing chamber and bore dimensions currently specified in subpart 160.028 would apply only to signal pistols intended to launch parachute distress signals that meet subpart 160.024. For signal pistols intended to launch other aerial flares, the chamber and bore dimsensions of the pistol would be discretionary. Additionally a provision would be added to require that the pistol be designed to fire only a distress signal and not a conventional round of ammunition.

The requirement that the line diameter for rocket-type line-throwing appliances of the specification must be 7/32 to 9/32 inch would be revised. This requirement has been outdated by advances in rope-fiber technology. As amended, the specification would require that the breaking strength of line must be at least 2,250 N (500 lb). To provide an adequate handhold, the minimum diameter would be 4 mm (5/32 fraction in).

A provision would be added to require distress signals to be marked with an expiration date. This service life would be 3 years from the date of manufacture unless the production lot is stored in accordance with certain controlled stowage conditions which are included in the proposal. For pyrotechnic signals so stored, the expiration date would be 3 years from the date they are removed from storage, but not more than 4 years from the date of manufacture.

This proposal has been reviewed under the Department of Transportation's "Policies and Procedures for Simplification, Analysis and Review of Regulations" (43 FR 9582, Mar. 8, 1978). A draft evaluation has been prepared and placed in the public docket.

In consideration of the preceding, subchapter Q of Title 46, Code of Federal Regulations, would be amended as follows:

1. By adding paragraph (p) to § 160.021-4 to read as follows:

§160.021-4 Sampling, inspections, conditioning, and tests.

* * * * *

(p) *Hot slag test.* The following procedure must be followed for each hot slag test:

(1) Ten layers of clean standard newsprint paper must be laid out on a clean, dry, flat surface covering an area at least 110 cm (43 in) by 140 cm (55 in). Each paper must have a moisture content between 5 percent and 8 percent but paper that is neither dry and brittle nor damp and limp is allowed.

(2) The top layer of the paper must have a grid drawn on it of at least 616 squares, each of which must be 5 cm by 5 cm (2 in x 2 in).

(3) A flare must be ignited and held, with the flame projecting upward at an angle of approximately 45°, 1.2 m (4 ft) directly above the geometric center of the grid.

(4) The flare must burn completely and if the top sheet of paper is consumed by hot slag or flame anywhere within the boundaries of 308 or more of the individual squares in the grid, the flare fails the test.

2. By adding in the list of marking requirements contained in §§ 160.021(5)(a), 160.022(5)(b), 160.023(5)(a), 160.024(5)(b), 160.036(5)(b), 160.037(5)(b), and 160.057(5)(b) the following words: "service life expiration date (date to be inserted by manufacturer.)"

3. By adding a new section in subparts 160.021, 160.022, 160.023, 160.024, 160.036, 160.037, and 160.057 to read as follows:

§ 160. Marking of expiration date.

(a) Each approved signal must have an expiration date marked on it.

(b) For each signal shipped directly from the production line or from storage that does not meet the requirements in paragraph (d) of this section, the expiration date must be 3 years from the date of manufacture.

(c) For each signal stored before shipment under conditions specified in paragraph (d) of this section, the expiration date must be—

(1) Not more than 3 years after removal from storage; and

(2) Not more than 4 years after the date of manufacture.

(d) The following conditions must be met to qualify for determining the expiration date under paragraph (c) of this section:

(1) The relative humidity of the storage place must not exceed 50 percent.

(2) The temperature of the storage place must be maintained between 10° C (50° F) and 30° C (86° F).

(3) The temperature and humidity of the storage place must be recorded daily.

(4) The signal must be from a lot that is stored separately from other lots.

(5) The lot number, the date of shipment, the date the lot is placed in storage, the number of signals shipped, and the consignee of the shipment must be recorded and the manufacturer must retain this record for at least 5 years after the date of shipment.

§§ 160.022(5)(a) and 160.057(5)(a) [Amended]

4. By amending the first sentence in §§ 160.022(5)(a) and 160.057(5)(a) adding the words, "approved for daytime use only."

Subpart 160.028—Signal Pistols for Red Flare Distress Signals

5. By revising the title of subpart 160.028 to read as set forth above.

§ 160.031-6 [Amended]

6. By amending § 160.031-6 by deleting the words "the Marine Inspection Office identification letters, and the letters 'USCG.'"

§ 160.040-5 [Amended]

7. By amending § 160.040-5 by revoking and reserving paragraph (d).

8. By revising § 160.028-2 to read as follows:

§ 160.028-2 Type.

(a) Each signal pistol for launching a parachute distress signal that meets subpart 160.024 of this part must be of the center-firing type having chamber and bore dimensions within the limits indicated by drawing No. 160.028-2(A).

(b) A signal pistol for launching an aerial flare not under paragraph (a) of this section may have any chamber and bore dimensons if they are not the dimensions for a conventional round of ammunition.

9. By revising the first sentence of § 160.040-4(c) to read as follows:

§ 160.040-4 Equipment for impulse projected rocket type line-throwing appliance.

* * * * *

(c) Four service lines, each 4 mm (5/32 in) minimum diameter with a minimum breaking strength of at least 2,250 N (500 lb), and in one continual length not less than that specified in the approval of the appliance carried, without splice, knot, or other retarding or weakening features. * * *

* * * * *

(Sec. 1, 73 Stat. 475 (46 U.S.C. 481); sec. 6(b)(1), 80 Stat. 937 (49 U.S.C. 1655(b)(1); 49 CFR 1.46(b)).)

NOTE.—The Coast Guard has determined that this document does not contain a major proposal requiring preparation of an economic impact statement under Executive Order 11821, as amended, and OMB Circular A-107.

J. B. HAYES,
Admiral, U.S. Coast Guard
Commandant.

OCTOBER 11, 1978.

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[4910-14-M]

[46 CFR Part 160]

[CGD 76-048b]

DISTRESS SIGNALS, SIGNAL PISTOLS, AND LINE-THROWING APPLIANCES

Proposed Inspection and Approval Procedures

AGENCY: Coast Guard, DOT.

ACTION: Proposed rules.

SUMMARY: The Coast Guard is considering amending the specifications for pyrotechnic distress signals, signal pistols for flare-type distress signals, and line-throwing appliances to allow the approval of these devices to be based on inspection and testing by independent laboratories. The purpose of these amendments is to place responsibility for factory inspection on the manufacturer. This would free some of the Coast Guard's field personnel for other duties while still providing necessary inspection without any changes in the quality of the product. This proposal should be considered in conjunction with the proposed general approval and test procedures (subpt. 159) CGD 76-048) contained in the notice appearing on page——of this issue of the FEDERAL REGISTER.

DATES: Comments must be received on or before December 22, 1978

ADDRESSES: Comments should be submitted to Commandant (G-CMC/81), room 8117, Department of Transportation, Nassif Building, 400 Seventh Street SW., Washington, D.C. 20590.

FOR FURTHER INFORMATION, CONTACT:

Mr. Robert Markle, Office of Merchant Marine Safety (G-MMT/83), Room 8301, Department of Transportation, Nassif Building, 400 Seventh Street SW., Washington, D.C. 20590, 202-426-1444.

SUPPLEMENTARY INFORMATION: Interested persons are invited to participate in this proposed rulemaking by submitting written views, data, or arguments. Persons submitting comments should include their name and address, identify this notice (CGD 76-048b) and the specific section of the proposal to which the comment applies, and give the reasons for the comment. The proposal may be changed in light of comments received. All comments received before the expiration of the comment period will be considered before final action is taken on this proposal. Copies of all written comments received will be available for examination by interested persons. No public hearing is planned but one may be held at a time and place to be set in a later notice in the FEDERAL REGISTER if requested in writing by an interested person raising a genuine issue and desiring to comment orally at a public hearing.

DRAFTING INFORMATION

The principal persons involved in drafting this proposal are: Robert Markle, Project Manager, Office of Merchant Marine Safety, and Stanley M. Colby, Project Attorney, Office of the Chief Counsel.

DISCUSSION OF PROPOSAL

The regulations that would be amended as a result of this proposal are:

46 CFR Subpart 160.021—Signals, Distress, Hand Red Flare, for Merchant Vessels.

46 CFR Subpart 160.022—Signals, Distress, Floating Orange Smoke (5 Minutes), for Merchant Vessels.

46 CFR Subpart 160.023—Signals, Distress, Combination Flare and Smoke, Hand, for Merchant Vessels.

46 CFR Subpart 160.024—Signals, Distress, Pistol-Projected Parachute Red Flare, for Merchant Vessels.

46 CFR Subpart 160.028—Signal Pistols for Parachute Red Flare Distress Signals for Merchant Vessels.

46 CFR Subpart 160.031—Line-Throwing Appliance, Shoulder Gun Type (and Equipment), for Merchant Vessels.

46 CFR Subpart 160.036—Signals, Distress, Hand-held Rocket-Propelled Parachute Red Flare, for Merchant Vessels.

46 CFR Subpart 160.037—Signals, Distress, Hand, Orange Smoke, for Merchant Vessels.

46 CFR Subpart 160.040—Line-Throwing Appliance, Impulse-Projected Rocket Type (and Equipment), for Merchant Vessels.

46 CFR Subpart 160.057—Signals, Distress, Floating Orange Smoke (15 Minutes), for Merchant Vessels.

This proposal has been reviewed under the Department of Transportation's "Policies and Procedures for Simplification, Analysis and Review of Regulations" (43 FR 9582, Mar. 8, 1978). A draft evaluation has been prepared and placed in the public docket.

Proposed changes to the regulations in those subparts are discussed in detail below.

DISTRESS SIGNALS

Subparts 160.021, 160.022, 160.023, 160.024, 160.036, 160.037, and 160.057 would be amended as follows:

(1) Each section entitled "*Procedure for approval*" would be revised as follows:

(a) The procedures by which a manufacturer applies for approval and the Commandant approves a distress signal would be replaced by a reference to proposed subpart 159.005.

(b) The requirements for submission of plans and specifications would be deleted. Approval testing by recognized independent laboratories would be required. Requirements for conducting and reporting tests, including submission of plans and specifications would be those specified in proposed §§ 159.005-9 and 159.005-11.

(c) The paragraph entitled "*Preapproval sample*" would be deleted. Sample selection would be as specified in a proposed sample plan which is discussed below.

(2) Each section entitled "*Sampling, inspections, conditioning and tests*" would be replaced by two new sections entitled "*Approval tests*" and "*Production tests*". The nature of the tests required would not change, however, some of the present "operational" tests would be made "technical" tests. Tests would be required to be conducted by a recognized independent laboratory, or under the supervision of such a laboratory. A list of recognized laboratories, as provided for under proposed § 159.010-11, would be added to each subpart.

(3) Under the proposed "*Approval tests.*"

(a) For each of the following subparts, the operational tests would be a

combination of the present requirements as indicated:

(i) Subpart 160.021—§ 160.021-4 (b)(1), (e), (f), and (h).

(ii) Subpart 160.022—§ 160.022-4 (b)(1), (e), and (f).

(iii) Subpart 160.024—§ 160.024-4 (b)(1), (e), (f), (g), and (h).

(iv) Subpart 160.036—§ 160.036-4 (b)(1), (e), (f), (g), and (h).

(v) Subpart 160.037—§ 160.037-4 (b)(1), (e), (f), and (h).

(vi) Subpart 160.057—§ 160.057-4 (b)(1), (e), and (f).

The existing operational tests not listed would be added to the technical tests.

(b) In subpart 160.023, the combination flare and smoke signal would continue to be tested as prescribed by MIL-S-18655.

(c) The proposed operational tests for subparts 160.021, 160.022, 160.024, 160.036, and 160.037 would be conducted in accordance with the sampling plan in table 1. The operational tests for subpart 160.057 would be conducted in accordance with the sampling plan in table 2. These sampling plans are based on MIL-STD-105, a widely used standard for quality control testing. Statistically, under the proposed sampling plans, the test results would be more more valid than the present test results. These sampling plans are discussed in further detail below.

(d) For each technical test in subparts 160.021, 160.022, 160.024, 160.036, and 160.037, three signals would have to be tested. Two of the three signals tested would have to pass for the signal model to be approved. For each technical test in subpart 160.057, one signal would be tested. Each signal tested would have to pass for the signal model to be approved. The reason for the different approach in subpart 160.057 is discussed in the explanation of the sampling plan.

(e) A report summarizing all production tests performed by the manufacturer and the independent laboratory since approval of the signal or submission of the previous report would have to be submitted to the Commandant as provided in proposed § 159.007-11. This summary would include the date of each test, the production lot number of the signals tested, and a complete test report on any lot that was rejected.

(f) The manufacturer would have to retain the records of each test performed by the manufacturer and by the recognized independent laboratory as required under the proposed § 159.007-13.

(4) Under the proposed *"Production tests"*:

(a) The operational and technical tests would be the same as those described above in paragraph (3), "Approval tests." The operational tests would have to be conducted for each lot produced and would use the same sampling plan as prescribed for "Approval tests." This sampling plan would allow larger lots than are now allowed, so that manufacturers could increase lot sizes over those presently produced and thereby reduce the frequency of the operational tests. The sampling plan would assure that the quality of the lot is maintained regardless of its size.

(b) The manufacturer or laboratory would select the required number of signals from each production lot and perform the tests that are now performed by the Coast Guard marine inspector as production checks at the place of manufacture.

(c) A recognized independent laboratory would have to perform or supervise the production tests periodically. The frequency of these tests would be determined by the laboratory, but would not be less often than four times a year, unless the number of lots of signals produced in a year is less than four. If less than four lots are produced, each lot would have to be tested by the laboratory.

(d) The production check tests that are now performed at a Government laboratory would be performed by the recognized independent laboratory at a location determined by agreement between the laboratory and the manufacturer.

(5) The existing provisions for determining the number of samples for operational tests and the accept/reject criteria would be replaced by a sampling plan as follows:

(a) Under the sampling plans in tables 1 and 2, a sample consisting of a specified number of distress signals is selected from a production lot. The sample size depends on the lot size. Each unit in the sample is tested as prescribed in the operational tests. Each signal that has a defect listed in the table of defects in each subpart is assigned a score (failure percent) in accordance with that table. If the sum of all the failure percents (cumulative failure percent) for the number of units in the sample is less than or equal to the accept criterion, the lot is accepted. If this sum is equal to or more than the reject criterion the lot is rejected. If the cumulative failure percent falls between the accept and reject criteria, another sample is selected from the production lot and the operational tests are repeated. The cumulative failure percent of each sample tested is added to that of the previous samples to obtain the cumulative failure percent for all the signals tested (cumulative sample size). Additional samples are tested and the tests repeated until either the accept or reject criterion for the cumulative sample size is met. If any signal in the sample explodes when fired or ignites in a way that could burn or otherwise injure the person firing it, the lot is rejected without further testing. The steps in the operational test procedure are diagrammed in figure 1.

[4910-14-C]

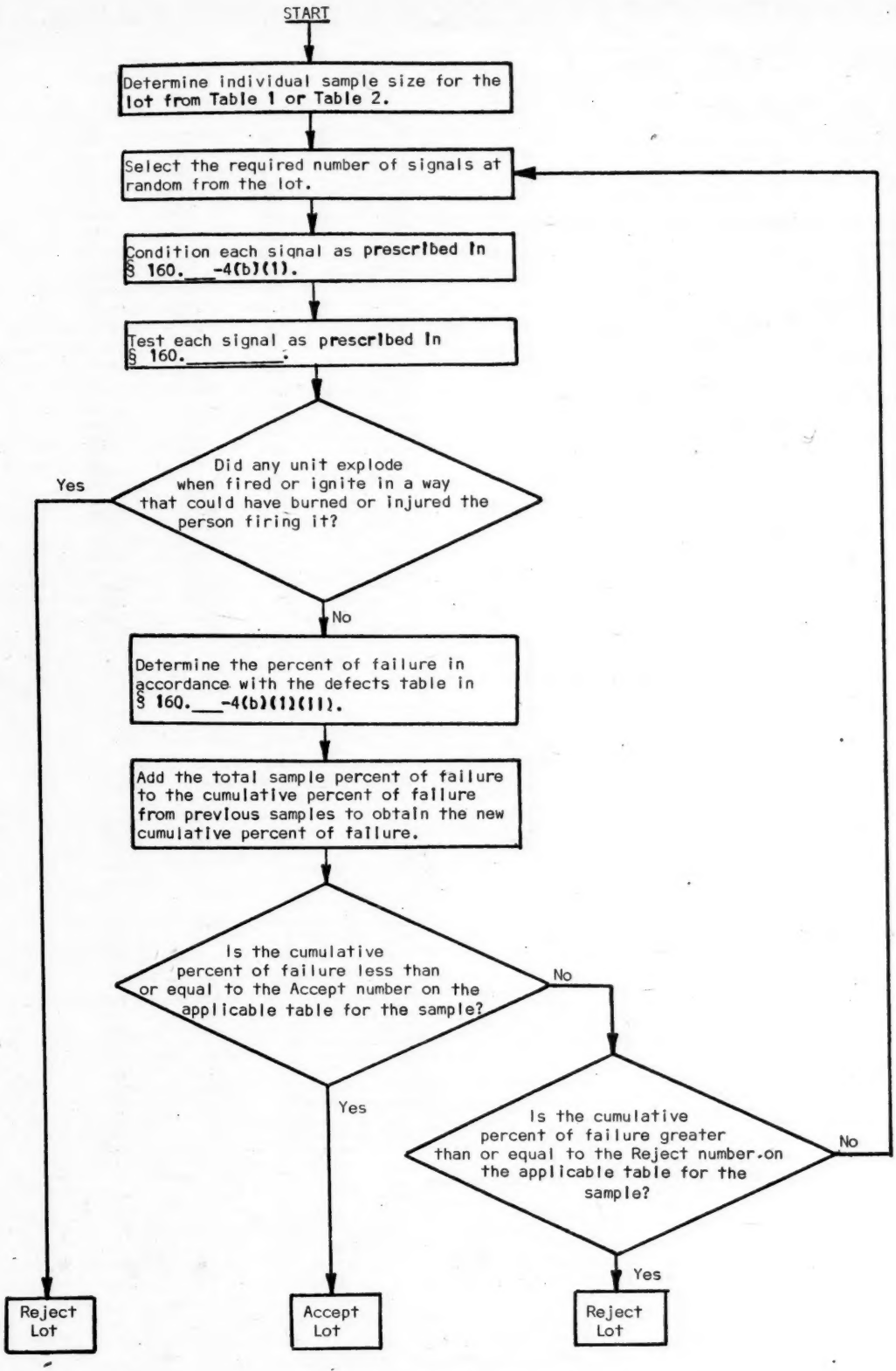
START
Determine individual sample size for the lot from Table 1 or Table 2.
Select the required number of signals at random from the lot.
Condition each signal as prescribed in § 160.___-4(b)(1).
Test each signal as prescribed in § 160._____.
Did any unit explode when fired or ignite in a way that could have burned or injured the person firing it?
Yes
No
Determine the percent of failure in accordance with the defects table in § 160.___-4(b)(1)(ii).
Add the total sample percent of failure to the cumulative percent of failure from previous samples to obtain the new cumulative percent of failure.
Is the cumulative percent of failure less than or equal to the Accept number on the applicable table for the sample?
No
Yes
Is the cumulative percent of failure greater than or equal to the Reject number on the applicable table for the sample?
No
Yes
Reject Lot
Accept Lot
Reject Lot

Figure 1. Operational test procedure.

TABLE 1.—*Accept and Reject Criteria for Operational Test Lots for Subparts 160.021, 160.022, 160.024, 160.036, and 160.037*

Lot size	Individual sample size	Sample	Cumulative sample size	Accept [1]	Reject [1]
280 or less	8	First	8	[2]	400
		Second	16	100	500
		Third	24	200	600
		Fourth	32	300	700
		Fifth	40	500	800
		Sixth	48	700	900
		Seventh	56	950	951
281 to 500	13	First	13	0	400
		Second	26	100	600
		Third	39	300	800
		Fourth	52	500	1,000
		Fifth	65	700	1,100
		Sixth	78	1,000	1,200
		Seventh	91	1,350	1,351
501 to 1,200	20	First	20	0	500
		Second	40	300	800
		Third	60	600	1,000
		Fourth	80	800	1,300
		Fifth	100	1,100	1,500
		Sixth	120	1,400	1,700
		Seventh	140	1,850	1,851
1,201 to 3,200	32	First	32	100	700
		Second	64	400	1,000
		Third	96	800	1,300
		Fourth	128	1,200	1,700
		Fifth	160	1,700	2,000
		Sixth	192	2,100	2,300
		Seventh	224	2,550	2,551
3,201 to 10,000	50	First	50	200	900
		Second	100	700	1,400
		Third	150	1,300	1,900
		Fourth	200	1,900	2,500
		Fifth	250	2,500	2,900
		Sixth	300	3,100	3,300
		Seventh	350	3,750	3,751

[1] Cumulative failure percent.
[2] Lot may not be accepted. Next sample must be tested.

TABLE 2.—*Accept and Reject Criteria for Operational Test Lots for Subpart 160.057*

Lot size	Individual sample size	Sample	Cumulative sample size	Accept [1]	Reject [1]
150 or less	2	First	2	[2]	200
		Second	4	[2]	200
		Third	6	0	200
		Fourth	8	0	300
		Fifth	10	100	300
		Sixth	12	100	300
		Seventh	14	299	300
151 to 500	3	First	3	[2]	200
		Second	6	0	300
		Third	9	0	300
		Fourth	12	100	400
		Fifth	15	200	400
		Sixth	18	300	500
		Seventh	21	499	500
501 to 1,200	5	First	5	[2]	300
		Second	10	0	300
		Third	15	100	400
		Fourth	20	200	500
		Fifth	25	300	600
		Sixth	30	400	600
		Seventh	35	699	700

[1] Cumulative failure percent.
[2] Lot may not be accepted. Next sample must be tested.

(b) Under the sampling plan in table 2, the sample size for subpart 160.057 (Orange Smoke Signals) would be smaller than those of the other subparts. The risk to the manufacturer that a satisfactory lot of signals might be rejected and the risk to the consumer that an unsatisfactory lot of signals might be accepted would be greater under subpart 160.057 than under the other subparts. The proposed increased risks are believed to be acceptable. The smoke signal approved under subpart 160.057 is known to be produced in much smaller quantities than the other signals and to cost much more than the other signals. Adopting the same sampling plan that is used for the other signals would result in testing that is prohibitively expensive.

SIGNAL PISTOLS AND LINE-THROWING APPLIANCES

Subparts 160.028, 160.031, and 160.040 would be amended as follows:

(6) In each subpart, the section entitled *"Procedure for approval"* would be amended as proposed in paragraph (1) of this document *"Distress Signals."*

(7) Section 160.028-4 and 160.031-5, *"Inspections and tests"*, and §160.040-5, *"Inspections, sampling, and tests"*, would each be replaced by two new sections entitled *"Approval tests"* and *"Production tests."* The test requirements, however, would remain in the same.

(8) Under the proposed *"Approval tests"*:

(a) The tests would be performed by a recognized independent laboratory listed as provided in proposed § 159.010-11 or by the manufacturer under the supervision of such a laboratory.

(b) The requirements for conducting and reporting the results of the approval test would be as prescribed in proposed §§ 159.005-9 and 159.005-11.

(9) Under the proposed *"Production tests"*:

(a) The manufacturer would continue to proof-test each signal pistol and line-throwing device, except that in § 160.040-5 the requirement that this be done in the presence of a marine inspector would be deleted.

(b) A recognized independent laboratory would have to perform or supervise the production tests periodically, at a frequency to be determined by the laboratory, but not less than once in any year in which signal pistols, appliances, or rockets are manufactured.

(c) A report summarizing all production tests would have to be submitted to the Commandant as provided in proposed § 159.007-11. The summary would have to include the serial number of each signal pistol or line-throwing appliance tested and the date of each test.

(d) The manufacturer would have to retain records of each test performed by the manufacturer and by the independent laboratory as required under the proposed § 159.007-13.

(Sec. 1, 73 Stat. 475 (46 U.S.C. 481); sec. 6(b)(1), 80 Stat. 937 (49 U.S.C. 1655(b)(1)); 49 CFR 1.46(b).)

NOTE.—The Coast Guard has determined that this document does not contain a major proposal requiring preparation of an economic impact statement under Executive Order 11821, as amended, and OMB Circular A—107.

Dated: October 11, 1978.

J. B. HAYES,
Admiral,
U.S. Coast Guard Commandant.

[FR Doc. 78-29479 Filed 10-20-78; 8:45 am]

[4910-14-M]

[46 CFR Parts 160, 161]

[CGD 76-183a]

SPECIFICATIONS: VISUAL DISTRESS SIGNALS FOR BOATS

Proposed Rules

AGENCY: U.S. Coast Guard, DOT.

ACTION: Proposed rule.

SUMMARY: The Coast Guard is proposing that specifications for three new distress signals be added to the regulations describing Coast Guard approved equipment. The three signals are red aerial pyrotechnic flares, electric distress lights, and distress flags. These three signals are included in the proposed rule that would require some recreational boats to carry distress signals, CGD 183, published on April 10, 1978 in the FEDERAL REGISTER (43 FR 15118). This proposal will insure that devices produced to meet the carriage requirement will not vary in performance specifications from one manufacturer to another, and the boater will be assured of both reliable and safe distress signals.

DATES: Comments must be received on or before December 22, 1978.

ADDRESSES: Comments should be submitted to Commandant (G-CMC/81), U.S. Coast Guard, Washington, D.C. 20590. Comments will be available for examination at the Marine Safety Council (G-CMC/81), Room 8117, Department of Transportation, Nassif Building, 400 Seventh Street, SW., Washington, D.C. 20590. Copies of studies referenced in this document are available for examination at the above address. A copy of the economic evaluation from which the economic summary in this document is taken is also available for examination at this address.

FOR FURTHER INFORMATION CONTACT:

Mr. David R. Gauthier Office of Boating Safety (G-BLC), Room 4308, Department of Transportation, Trans Point Building, 2100 Second Street SW., Washington, D.C. 20590, 202-426-4176.

SUPPLEMENTARY INFORMATION: Interested persons are invited to participate in this rulemaking by submitting written data, views, or arguments. Written comments should include the docket number (CGD 76-183a), the name and address of the person submitting the comments and the specific section of the proposal to which each comment is addressed. The proposal may be changed in light of comments received before the expiration of the comment period. No hearing is contemplated, but one may be held at a time and place set out in a later notice in the FEDERAL REGISTER, if requested by a person or organization desiring to comment orally at a public hearing and raising a genuine issue.

DRAFTING INFORMATION

The principal persons involved in the drafting of this rulemaking are: Mr. D. R. Gauthier, Project Manager, Office of Boating Safety; Lieutenant G. Stephen Karavitis, Project Attorney, Office of the Chief Counsel.

DISCUSSION OF THE PROPOSED REGULATIONS

The purpose of this proposed rule is to include in Subchapter Q, specifications, three new distress signals designed for use by operators of boats as defined in the Federal Boat Safety Act of 1971 (46 U.S.C. 1452) in complying with the proposed carriage requirement published in the FEDERAL REGISTER on April 10, 1978 (43 FR 15118). The three signals are: (1) Aerial red pyrotechnic flares, both self-contained or pistol launched, and both parachute assisted and nonparachute assisted (meteors); (2) electric distress lights, both automatic and manually keyed; and (3) distress flags. Including these specifications in subchapter Q will insure that devices produced to meet the carriage requirement will not vary in performance specifications from one manufacturer to another, and the boater will be assured of both reliable and safe distress signals if he or she chooses to carry one of these types of signals.

All these signals have been manufactured in this country for several years. However, specifications for distress signals for boats are new. They are

being included in subchapter Q along with specifications for distress signals required on merchant vessels. Distress signals required on merchant vessels are designed for more extreme signaling needs than are normally encountered by boats. The proposed carriage requirement for signals on boats will be found in title 33. To require boats to carry the same devices as merchant ships would impose higher costs on the boater than is necessary.

On September 27, 1976, the Coast Guard published an advanced notice of proposed rulemaking for visual distress signals on boats (41 FR 42218). Its purpose was to solicit public input on the question of visual distress signals on boats. Over 150 comments were received, the largest group being from private individuals who own or operate boats. The following is a statistical breakdown of respondents:

	Percent
Private individuals	44
Industry	17
Organized groups	13
State boating law administrators	13
Other Government bodies	3
Media	1
Other	8

A large number of devises were suggested by respondents. Many of the suggestions in those comments have been incorporated in this proposed rule.

Several specific considerations influenced these specifications. The Coast Guard has conducted numerous tests during the past few years in attempting to define necessary characteristics for distress signals on boats. A detailed description of these tests is included in CGD 76-183, published in the FEDERAL REGISTER of April 10, 1976 (43 FR 15118), since they influenced which signals would meet the proposed carriage requirement. However, it is appropriate that they be included in summary form here as well. First, the signal must serve both an alerting and a locator function. The alerting function tells a potential observer that the boat displaying the signal needs help. The locator function aids potential rescuers in identifying which boat out of several is the one in distress. Second, it must serve both these functions at a range of 1 mile for daytime signals and 3 miles for nighttime signals. These distances were determined by analysis of both search and rescue (SAR) data and other boating surveys. Third, these signals must be visible to other boats, since they are the most likely source of assistance. Signals designed primarily for recognition from search aircraft are not acceptable. Finally, the signals should be consistent with the 1972 Convention on the International Regulations for Preventing Collisions at Sea, the 72 COL REGS.

The red aerial pyrotechnic distress signal specifications were drawn in part from existing Coast Guard specifications for other aerial pyrotechnics. There are several differences, however. First, this specification allows nonparachute assisted signals (meteors). It also allows smallers pistol-projected signals. Previous specifications required pistol projected distress signals to be 37 mm. This ruled out the smaller 25 mm and 12 gage signals that have been carried by boaters for many years. These signals will now be included. An amendment to the existing pistol specification is contained in CGD 76-048a, also in this issue of the FEDERAL REGISTER, which deletes the bore specifications for signal pistols. This amendment will allow pistols to be producted that can fire these smaller signals.

Included in the specification are some construction standards. These standards require that signals produced under this specification either be self-contained or designed for use in an approved pistol. Signals must be constructed in lots, with a new lot started whenever: (1) Any change in construction details or raw materials occurs; (2) a new product line is started; or (3) a lot exceeds 10,000 signals. Signals must have a main propulsion charge consisting of a self-oxidizing fuel containing no black powder. However, a manufacturer may use black powder in other components of the signal, such as during the candle-ejection sequence for parachute assisted signals. A final construction standard require that self-contained signals have an interior chamber containing the main propulsion charge and the pyrotechnic candle which is a single, continuous, unbroken cylinder constructed so that it is capable of withstanding the forces generated by ignition without rupture, crack, or deformation of any kind.

Performance requirements for the signal are relatively simple. The signal must burn for a minimum of 6 seconds, with a luminous intensity of at least 10,000 candela. It must burn out completely before it falls back to the level of launch. It must burn a total of at least 1,000 candle-minutes, with a candle-minute equal to the product of the intensity of the signal expressed in candela times the total burning time in minutes of the pyrotechnic candle or candles. The signal must meet these performance requirements after immersion in water for 24 hours, and must also meet these performance requirements after being subjected to an elevated temperature, humidity and storage test.

In addition, there are two performance requirements for the signal which relate to the person-device interface. A signal cannot normally function in a manner which would cause burns or injury to an unprotected person when fired in accordance with the manufacturer's instructions. The Coast Guard will not approve signals which pose hazards to prudent individuals who use signals as they were intended. We recognize that some signals do pose hazards to people when they are used for purposes other than distress signaling, or when people use them without reading or heeding the instructions the manufacturer must include. The Coast Guard does not feel that it is reasonable to require the manufacturer of the signal to try and prevent, through design and production, misuse of distress signals. The Coast Guard does feel, however, that the manufacturer has a responsibility to produce a signal that does not burn or injure an unprotected person using it properly. The accompanying performance requirement is that a signal cannot malfunction in a manner that would cause burns or injury to an unprotected person when it is fired. This is essentially a "fail-safe" provision in the specifications. Several signals currently produced already appear to meet the spirit of this proposed requirement. The key to this requirement is that, in the unlikely event that a signal did malfunction, the user would have some margin of safety in disposing of the signal promptly without the possibility, for example, of having the signal explode in one's hand.

The Coast Guard does not intend at the present time to intentionally induce signal malfunction to evaluate how the manufacturer meets this performance requirement. Evaluation of compliance with this provision would be on a design level, when the signal is submitted for approval. However, provisions are included in the production testing requirements that would automatically fail a lot where a signal malfunctioned in a manner that would cause burns or injury to an unprotected person. A further source of information would be reports from users where signals did not meet this requirement. The Coast Guard could then use such reports to reevaluate an approval certificated issued under this specification to a manufacturer. The Coast Guard invites comments from manufacturers and potential users of signals on both these related performance requirements.

Performance requirements do not vary between parachute flares and meteors. Conceivably a manufacturer could produce a parachute flare that only burns for 6 seconds. However, this probability seems unlikely, given the fact that current parachute flares of the 25 mm size have a burning time of 20 to 25 seconds, and present consumers of this device would be unlike-

ly to purchase one with a shorter duration, choosing instead a signal with longer duration that costs about what they are presently paying. Two additional factors in the performance requirements will preclude malfunctioning parachute flares from being approved as meteors. Parachute flares whose parachutes fail to deploy will not meet either the 6-second burning requirement or the requirement to burn out before falling back to the level of launch. The reason for distinguishing between meteors and parachutes flares, and the consequent labeling differences, has to do with the fact that the carriage requirement for these signals on boats, CGD 76-183, allows the parachute flares to meet both the day and night signal requirements, while the meteor is acceptable only in meeting the night signal requirement.

There are specific labeling requirements for the manufacturer. Devices must be labeled with the manufacturer's name, color, and burning time of the pyrotechnic candle or candles, the size signal pistol if one is required, the lot number, Coast Guard approval number, operation and storage instructions, date of expiration, and identification as either parachute assisted or meteor. Some of this information can be printed on a separate piece of paper packed with each signalor in the smallest container in which several signals are packed. Compliance with these labeling requirements in no way relieves the manufacturer of any obligation to comply with other labeling requirements, specifically those of the Federal Hazardous Substances Act, 15 U.S.C. 1263.

One change from previous pyrotechnic specifications is the shift from printing the date of manufacture on the signal to printing the date of expiration. This was done so consumers of the signals will know when the time has come to replace them. Date of expiration will normally be 3 years from the date of manufacture. The manufacturer can extend the date of expiration up to 1 additional year by storing the signals in a controlled environment until they are shipped from the plant. To do this, the manufacturer must store the signals in an area where the temperature remains between 10° C (50° F) and 30° C (85° F) and the relative humidity does not exceed 50 percent. A number of records must also be kept when the manufacturer choose to exercise this option.

All signals produced under this specification must be approved by the Coast Guard. The manufacturer applies to the Coast Guard for this approval. An application must include plans and diagrams of the device, as well as results of the operational and technical tests required by this specification. The tests must be conducted by an independent laboratory that has been accepted by the Coast Guard as capable of performing the required tests and as independent from the manufacturer of the signals. The Coast Guard will furnish a list of such laboratories on request from a manufacturer. Laboratories that seek to be listed by the Coast Guard for conducting these tests must apply to the Commandant (G-MMT), U.S. Coast Guard. Procedures covering this program are proposed in a separate document, CGD 76-048, which is also published in this issue of the FEDERAL REGISTER. Manufacturers must produce a lot of at least 100 signals for use in these tests. The U.S. Coast Guard will consider all the data submitted, and either accept or reject the application for approval. If accepted, the manufacturer will receive an approval certificate. If rejected, the manufacturer will be notified as to why the device was not approved.

Approval certificates will automatically expire 5 years from the date of issuance. The Coast Guard may withdraw an approval certificate before that time if the manufacturer produces signals that do not meet these specifications, or if the manufacturer does not conduct the production testing that is required by these proposed rules.

The specification includes two types of tests. Operational tests are designed to insure that the signals meet the performance requirements of the specifications. Samples for these tests are selected using a sample plan based on military standard 105D, which assures random sample selection, and adjusts the number of samples required to the size of lot produced. Technical tests are designed to insure that the intensity, color, and storage characteristics of the signals produced meet the requirements of the proposed specification. The number of samples required for the technical tests is constant, regardless of the size of the lot, since these characteristics do not normally vary among the signals produced within one lot.

Production testing for these signals will be the responsibility of the manufacturer and the listed independent laboratory that performs the tests for the application for approval. Operational tests must be conducted for each lot produced. The laboratory must conduct or directly supervise the operational tests for at least four lots during the course of each year. The lots thus selected may be at irregular intervals, but if there is production in a quarterly period, the laboratory must conduct or directly supervise the operational tests for at least one lot during that quarterly period. All other operational tests are the responsibility of the manufacturer. The technical tests do not have to be conducted for every lot. They must be conducted at least once every year, or every 10 lots, whichever happens first. All technical tests must be performed or directly supervised by the laboratory. The manufacturer must provide a yearly report of the production tests, both operational and technical, to the Coast Guard.

The specifications for the distress flag are new, but are related to those established by Canada and recognized internationally as a distress signal. The flag must be either a square or a rectangle, at least 3 feet on a side. It must be indian orange in color, and have a black square and disc superimposed on the central horizontal axis of the flag. The sizes of the square and disc are proportional to the total size of the flag, but the square must have a side that is at least 1 foot long. The disc must have a diameter of at least 1 foot. If the flag is a rectangle, the shorter side must be at least ⅔ the length of the longer side. The flag must have reinforced corners, and have a grommet in each corner. It must also be packed with four pieces of line that can be used to secure it to a pole or mast. The line must have a tensile strength of at least 25 pounds, and each piece must be at least 12 inches long.

The choice of international orange as the color for the flag was to insure a high contrast color in the marine envirnment. The color specified is indian orange, Cable No. 70072, Standard Color Card of America, issued by the Textile Color Asssociation of the United States, Inc., 200 Madison Avenue, New York, N.Y., and is the color required for Coast Guard approved life preservers. It is possible that other, more desirable colors have been developed. The Coast Guard is interested and welcomes suggestions for alternative colors for the distress flag.

Distress flags produced under this specification will not require approval from the Coast Guard. The manufacturer will however, have to certify that flags will have to be labeled accordingly, so that potential consumers will be able to indentify flags that meet the proposed carriage requirement.

Flags will not have to undergo any type of testing. However, the specification does require that the material used in the flag must be capable of passing an accelerated weathering test. The accelerated weathering test is comprised of a salt spray in combination with an air blast, and conducted under ultraviolet light. This is similar to tests currently required for plastic materials on lifeboats. The Coast

Guard solicits suggestions from flag manufacturers on this test, and specifically on ultraviolet light specifications appropriate for flag materials.

The manufacturer, by certifying the flag, must consequently insure that the material used will meet this test, either through agreements with the supplier of the material or through his own production system. The manufacturer must submit to the Commandant (B-BBT), U.S. Coast Guard, a notice that he is producing flags under this specification. The Coast Guard will maintain a copy of this notice for 5 years. This will allow the Coast Guard to list the manufacturer in CG-190, Equipment Lists, as a potential supplier of flags produced under this specification.

The specifications for the distress light represent the greatest departure from existing specifications. The Coast Guard presently approves flashlights used on lifeboats and strobe lights used as man-overboard lights. Through tests conducted and discussed in document CGD 76-183 (43 FR 15118), the conclusion was reached that these lights are not satisfactory for use on boats as distress signals. The flashlights do not have sufficient intensity, and the strobe lights do not necessarily indicate distress to an observer. This is because flashing lights, such as strobe lights, are common in the marine environment, and are used as aids to navigation lights, collision avoidance lights, and personal flotation device lights for people in the water.

The proposed specification will allow two types of distress lights. A light must either be programed to automatically flash an S-O-S signal, or be equipped with a switch that allows a similar S-O-S signal to be produced manually. Lights may either employ a parabolic beam, or emit light visible over a horizontal arc of 360 degrees. Irrespective of the type of light or beam, the light must have certain characteristics. It must be waterproof, corrosion resistant, float with the lens up, and contain an independent power source that will power the light for at least 8 hours of continuous use. If the power source requires external water to form an electrolyte, then it must operate in both sea water and fresh water.

The intensity of the light is dependent on whether it is a parabolic beam or emits light visible over a horizontal arc of 360 degrees. Parabolic beam lights must produce a light that, measured 10 feet from the outer lens surface, illuminates an area that is at least 18 inches in diameter measured perpendicular to the beam. Within this illuminated area, which will commonly be a circle, no point can have an intensity less than 50 candela, and there must be at least one point where the intensity is at least 5,000 candela.

Lights visible over a horizontal arc of 360 degrees must produce a beam that has its focal plane at the horizon. The area illuminated by a light of this type will most commonly be a band of light. At a distance of 10 feet from the outer lens surface, the intensity of this band of light must be at least 350 candela. In addition, perpendicular to this point on the focal plane at a distance of 9 inches above and below it, the measured intensity must be at least 50 candela.

The purpose in specifying beam width for both types of lights is to insure that the light will be able to transmit the S-O-S signal to an observer, and the observer will be able to recognize the signal, even if the boat in distress is rocking up and down in a seaway. If the beam width is too narrow, the light will only be seen as a blinking light, and thus will not be considered a distress signal by an observer.

Lights that produce an automatic S-O-S must produce the signal at the rate of between 3 and 5 times each minute. Our field tests have shown that a faster rate blurs the signal together at a range of 3 miles, and a slower rate is difficult to perceive as a distress signal. Lights that rely on a manual switch must be engineered in such a way that a person can produce an S-O-S signal manually that is the same as the signal produced by automatic lights. The Coast Guard considers this more a matter of switch design than any other factor, but will allow manufacturers design latitude in this area.

Lights produced under this specification will not require approval by the Coast Guard. The manufacturer must certify that the light meets Coast Guard specifications if it is sold as a distress signal. Labeling and certification statements will reflect this fact. The manufacturer will be required to test a prototype light to insure that it meets all the requirement of this specification before it can be sold as certified. In addition, he must submit to the Commandant (G-BBT), U.S. Coast Guard, a notification of the test results for each type of light that is certified under this specification. The Coast Guard will maintain a copy of this notice for 5 years. This will allow the Coast Guard to list the manufacturer in CG-190, Equipment Lists, as a potential supplier of lights produced under this specification.

The Coast Guard has evaluated this proposal under the Department of Transportation policies for improving Government regulations published on March 8, 1978 (43 FR 9582). The proposed approval system for aerial pyrotechnic distress signals requires adjusting the cost data drawn from existing approval systems. In addition, it should be noted that this proposal would increase the limits on lot size from 3,000 signals to 10,000 signals, which should lower the cost per signal. The Coast Guard estimates that the cost incident to approval will not be more than $1.50 to $2 for each signal. While this represents a relatively high percentage of the total cost of some types of pyrotechnic distress signals, the Coast Guard feels that it is reasonable in view of the necessity of insuring reliable and safe signals. Comments on the anticipated costs of the proposed approval system from persons having experience in this area are particularly desired.

Costs associated with certification of lights and flags will be primarily labeling costs. These are anticipated to range below $0.50 for each device.

The Coast Guard estimated in the proposed carriage requirement (43 FR 15118) that it will apply to about 1.9 million boats. However, it is difficult to project how many of these boats will choose to carry the three signals included in this proposed rule, especially since five other types of signals will be acceptable in meeting the proposed carriage requirement. In addition, boats not required to carry signals will be encouraged to do so through the Coast Guard's boating safety program. Considering that there are an estimated 3 million boats on the coastal waters of the United States, many boaters, who would otherwise not carry signals, might select one of these three signals to improve their margin of safety. Without knowing how many of these devices will be produced and sold to the boating public, the total cost of this proposed rule cannot be determined.

In consideration of the foregoing, it is proposed to amend Title 46, Code of Federal Regulations, Subchapter Q, by adding subparts 160.066, 160.072, and 161.013, to read as follows:

Subpart 160.066—Distress Signal for Boats, Red Aerial Pyrotechnic Flare

Sec.

160.066-1 Type.
160.066-5 Design, construction, and manufacturing requirements.
160.066-7 Performance requirements.
160.066-9 Labeling.
160.066-10 Expiration date.
160.066-11 Approval procedures.
160.066-12 Operational tests.
160.066-13 Technical tests.
160.066-14 Production testing.
160.066-18 Listed Independent Laboratories.

AUTHORITY: Sec. 5, 85 Stat. 215 (46 U.S.C. 1454); 49 CFR 1.46(n)(1).

Subpart 160.066—Distress Signal for Boats, Red Aerial Pyrotechnic Flare

§ 160.066-1 Type.

(a) Red aerial pyrotechnic distress signals specified by this subpart must be either self-contained or pistol launched, and either meteor or parachute type.

§ 160.066-5 Design, construction, and manufacturing requirements.

(a) Each signal must be either:

(1) A self-contained unit, with all necessary components for firing the signal, or

(2) A cartridge intended for firing from a signal pistol that is approved under subpart 160.028 of this chapter.

(b) Each signal must have a main propulsion charge consisting of a self-oxidizing solid fuel containing no black powder.

(c) Each self-contained unit must have an interior chamber containing the main propulsion charge and the pyrotechnic candle which is a single, continuous, unbroken cylinder constructed so that it is capable of withstanding the forces generated by ignition without rupture, crack, or deformation of any kind.

(d) Signals must be constructed in lots numbered serially by the manufacturer. A new lot must be started when:

(1) Any change in construction details or raw materials occurs;

(2) Production is started on a new production line or on a previously discontinued production line; or

(3) A lot exceeds 10,000 units.

§ 160.066-7 Performance requirements.

(a) Each signal must:

(1) Burn "vivid red" as specified in 46 CFR 160.021-4(n) for at least 6 seconds.

(2) Have a luminous intensity of at least 10,000 candela.

(3) Burn out completely before falling back to the level of launch.

(4) Function in a manner that would not cause burns or injury to an unprotected person firing the signal in accordance with the manufacturer's instructions.

(5) Not malfunction in a manner that would cause burns or injury to an unprotected person.

(6) Burn a total of not less than 1,000 candle-minutes using the formula $I \times T = Cm$ where:

I = the average luminous intensity in candela;
T = the total burn time of the device in minutes; and
Cm = the candle-minute rating of the device.

(b) Each signal must meet the requirements of paragraph (a) of this section after:

(1) Submersion in water for 24 hours, or

(2) If protected by a sealed container, submersion in water for 24 hours inside the sealed container immediately followed by submersion for 10 minutes without the container, and

(3) Being exposed to the elevated temperature, humidity, and storage test in § 160.066-14(b).

§ 160.066-9 Labeling.

(a) Each signal must be legibly and indelibly marked with the following information:

(1) The manufacturer's name,

(2) The color and burning time of the pyrotechnic candle(s),

(3) The specific signal pistol for which the signal is designed, if any,

(4) The lot number,

(5) The Coast Guard approval number,

(6) Operation and storage instructions,

(7) The month and year of expiration determined by § 160.066-10, and

(8) If the signal's descent is parachute controlled, the following words:

Parachute Flare. Acceptable as a Day and Night Visual Distress Signal for boats as required by 33 CFR 175.110, For Emergency Use Only.

or

(9) If the signal's descent is not parachute controlled, the following words: "Meteor Flare. Acceptable as a Night Only Visual Distress Signal for boats as required by 33 CFR 175.110. For Emergency Use Only".

(b) If the signal is too small to contain all of the information required by paragraph (a) of this section and any labeling which may be required by paragraph (c) of this section, the information required by paragraphs (a) (2), (6), (8), and (9) of this section may be printed on a separate piece of paper packed with each signal or with the smallest container in which several signals are packed.

(c) Compliance with the labeling requirements of this section does not relieve the manufacturer of the responsibility of complying with the label requirements of 15 U.S.C. 1263, the Federal Hazardous Substances Act.

§ 160.066-10 Expiration date.

(a) Each approved signal must have an expiration date marked on it.

(b) For each signal shipped directly from the production line or from storage that does not meet the requirements in paragraph (d) of this section, the expiration date must be 3 years from the date of manufacture.

(c) For each signal stored before shipment under conditions specified in paragraph (d) of this section, the expiration date must be—

(1) Not more than 3 years after removal from storage; and

(2) Not more than 4 years after the date of manufacture.

(d) The following conditions must be met to qualify for determining the expiration date under paragraph (c) of this section:

(1) The relative humidity of the storage place must not exceed 50 percent.

(2) The temperature of the storage place must be maintained between 10° C (50° F) and 30° C (86° F).

(3) The temperature and humidity of the storage place must be recorded daily.

(4) The signal must be from a lot that is stored separately from other lots.

(5) The lot number, the date of shipment, the date the lot is placed in storage, the number of signals shipped, and the consignee of the shipment must be recorded and the manufacturer must retain this record for at least 5 years after the date of shipment.

§ 160.066-11 Approval procedures.

(a) Red aerial pyrotechnic flare distress signals are approved under the procedures of subpart 159.005 of this chapter.

(b) The manufacturer must produce a lot of at least 100 signals from which samples for preapproval testing must be drawn. Preapproval testing must be conducted in accordance with the operational test in § 160.066-13 and the technical tests in § 160.066-14. In order for the signal to be approved, the samples must pass the operational tests and must not fail the technical tests.

(c) The preapproval tests must be performed by an independent laboratory accepted by the Commandant under § 159.010 of this chapter. A list of independent laboratories accepted by the Commandant is in § 160.066-18.

§ 160.066-12 Operational tests.

(a) The procedure for conducting operational tests is described in figure (1).

(1) An "accept lot" decision must be reached in order to pass the operational tests.

(2) If a "reject lot" decision is reached, the entire lot is rejected and must not be sold as Coast Guard approved.

(3) If a lot is produced with the Coast Guard approval number printed on the signals, and a "reject lot" decision is reached, the signals must be destroyed or the Coast Guard approval number obliterated.

(b) Each signal selected for the operational tests must be conditioned by:

(1) Being submerged under at least 25 mm (1 in) of water for 24 hours without any protection other than its waterproofing; or

(2) If waterproofing is provided by a sealed plastic bag or other waterproof packaging, submersion under 25 mm (1 in) of water for 24 hours in the packaging, followed immediately by submersion for 10 minutes with the signal removed from the packaging.

(c) After each signal selected has undergone the conditioning required by paragraph (b) of this section it must be fired as described by the manufacturer's operating instructions. The following data must be recorded for each signal:

(1) Burning time of the pyrotechnic candle;

(2) Color;

(3) Whether the pyrotechnic candle burns out above, at, or below the level of launch.

(d) A signal fails the operational tests if:

(1) It fails to fire;

(2) The pyrotechnic candle fails to ignite,

(3) The signal is any color other than vivid red,

(4) The burning time with a vivid red color is less than 6 seconds,

(5) The pyrotechnic candle continues to burn after if falls back to the level of launch, or

(6) The pyrotechnic candle burns less than 1,000 candle-minutes as calculated in § 160.066-7(a)(6), using the time observed from paragraph (c)(1) of this section and the rated intensity from the most recent technical test conducted under § 160.066-13.

(e) A lot is rejected if:

(1) A "reject lot" decision is reached using figure (1) and table 1 after completion of the operational tests; or

(2) Any signal in the sample malfunctions in a manner that would cause burns or injury to an unprotected person firing the signal.

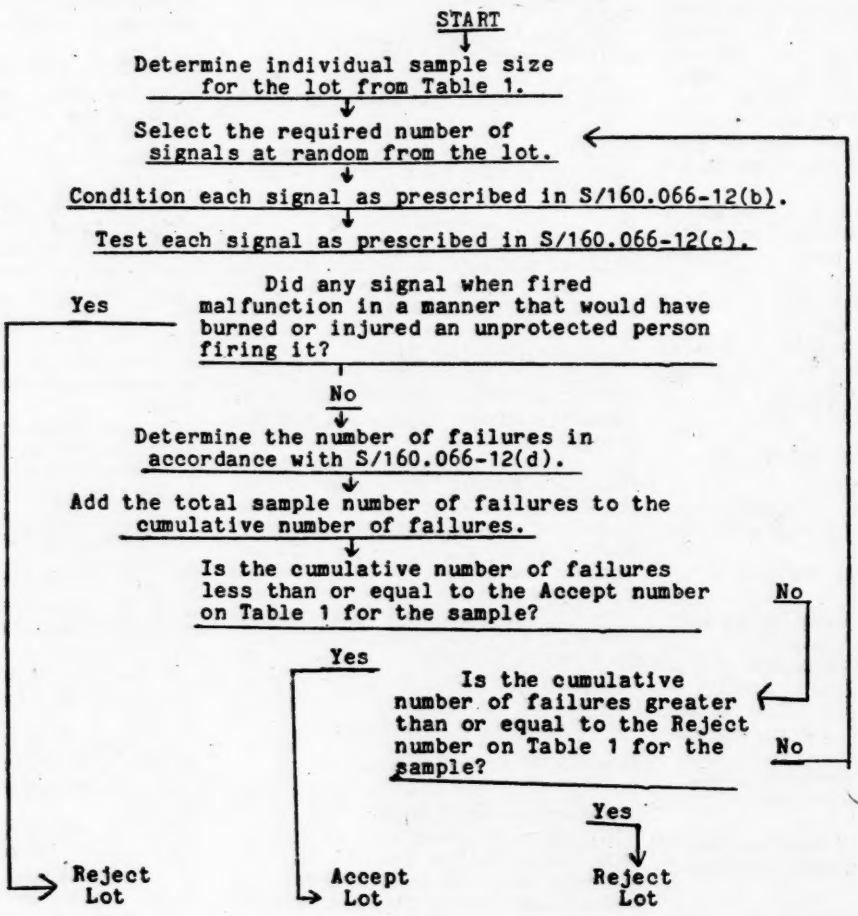
START
Determine individual sample size for the lot from Table 1.
Select the required number of signals at random from the lot.
Condition each signal as prescribed in S/160.066-12(b).
Test each signal as prescribed in S/160.066-12(c).
Did any signal when fired malfunction in a manner that would have burned or injured an unprotected person firing it?
Yes
No
Determine the number of failures in accordance with S/160.066-12(d).
Add the total sample number of failures to the cumulative number of failures.
Is the cumulative number of failures less than or equal to the Accept number on Table 1 for the sample?
No
Yes
Is the cumulative number of failures greater than or equal to the Reject number on Table 1 for the sample?
No
Yes
Reject Lot
Accept Lot
Reject Lot

Figure 1. Operational Test Procedure.

TABLE 1.—*Accept and Reject Criteria for Operational Test Lots*

Lot size	Individual sample size	Sample	Cumulative sample size	Accept [1]	Reject [1]
280 or less	8	First	8	*	4
		Second	16	1	5
		Third	24	2	6
		Fourth	32	3	7
		Fifth	40	5	8
		Sixth	48	7	9
		Seventh	56	9	10
281 to 500	13	First	13	*	4
		Second	26	1	6
		Third	39	3	8
		Fourth	52	5	10
		Fifth	65	7	11
		Sixth	78	10	12
		Seventh	91	13	14
501 to 1,200	20	First	20	*	5
		Second	40	3	8
		Third	60	6	10
		Fourth	80	8	13
		Fifth	100	11	15
		Sixth	120	14	17
		Seventh	140	18	19
1,201 to 3,200	32	First	32	1	7
		Second	64	4	10
		Third	96	8	13
		Fourth	128	12	17
		Fifth	160	17	20
		Sixth	192	21	23
		Seventh	224	25	26
3,201 to 10,000	50	First	50	2	9
		Second	100	7	14
		Third	150	13	19
		Fourth	200	19	25
		Fifth	250	25	29
		Sixth	300	31	33
		Seventh	350	37	38

[1] Cumulative number of failures.
*Lot may not be accepted. Next sample must be tested.

§ 160.066–13 Technical tests.

(a) The following conditions apply to technical tests as described in this section:

(1) A total of nine signals must be selected at random from one lot for the tests;

(2) If the signals are protected by sealed packaging, then the technical tests must be conducted with the signal in the sealed packaging;

(3) If the test sample fails to pass one of the technical tests, the entire lot is rejected and must not be sold as Coast Guard Approved;

(4) If a lot is produced with the Coast Guard Approval Number on the signals, and the test sample fails one of the technical tests the signals must be destroyed or the approval number obliterated.

(b) The Elevated Temperature, Humidity, and Storage Test must be conducted in the following manner:

(1) Select three signals;

(2) Place each signal in a thermostatically controlled even-temperature oven held at 60 Degrees C (140 degrees F), and at not less than 90 percent relative humidity, for at least 72 hours;

(3) Remove each signal from the oven identified in (2), and immediately store each signal for 10 days in a chamber held at—

(i) A temperature of at least 20 degrees C (68 degrees F) but not more than 25 degrees C (77 degrees F), and

(ii) At not less than 65% relative humidity.

(4) Then remove each signal from any sealed packaging and fire it;

(5) The signals fail the test if:

(i) Any signal ignites or decomposes before firing,

(ii) Any signal when fired malfunctions in a manner that would cause burns or injury to an unprotected person firing the signal, or;

(iii) Two or more of the signals fail to project and ignite the pyrotechnic candle.

(c) The Spontaneous Combustion Test must be performed in the following manner:

(1) Select three signals,

(2) Place each signal in a thermostatically controlled oven for 48 hours at a temperature of 75 degrees C (167 degrees F),

(3) Remove the signals,

(4) The signals fail the test if any signal ignites or decomposes during the test.

(d) The Luminous Intensity and Chromaticity Test must be performed in the following manner:

(1) Remove the pyrotechnic candle from the remaining three signals,

(2) Ignite, measure, and record the intensity of the burning candle with a visual photometer or equivalent photometric device—

(i) While the specimen is supported in a horizontal position and the photometer is at right angles to the axis of the specimen,

(ii) At a distance of at least 3 m (10 ft.),

(iii) Every 2 seconds during the burning of the candle beginning one second after the candle (not including any primer, initiator, or delay) is ignited;

(3) Calculate the intensity of the candle as the arithmetic average of the readings taken;

(4) Measure and record the chromaticity of the burning candle as specified in 46 CFR 160.021–4(n);

(5) The signals fail the test if more than one signal has a luminous intensity of less than 10,000 candela, or more than one signal is not "vivid red".

§ 160.066–14 Production testing.

(a) Production tests must be performed under the procedures in Subpart 159.007 of this chapter.

(b) The operational tests in § 160.066–12 must be performed for every lot of signals produced.

(c) The technical tests in § 160.066–13 must be performed at least once every 12 months, or at least once every 10 lots, whichever occurs first.

(d) If a lot is rejected on the basis of the technical tests, then each subsequent lot produced must be tested according to the technical tests until samples from a lot pass these tests.

(e) The independent laboratory must perform or directly supervise—

(1) Each technical tests; and

(2) All operational tests for at least four lots in a 12-month period, unless fewer than four lots are produced in a 12-month period. If less than four lots are produced in a 12-month period, each operational tests must be performed or directly supervised by the independent laboratory.

(f) If a lot selected by the independent laboratory for an operational test is rejected, then the operational tests for each subsequent lot must be performed or directly supervised by the independent laboratory, until samples from a lot pass these tests;

(g) The independent laboratory selects the lots upon which technical tests are performed.

(h) If the manufacturer produces more than four lots within a 12-month period, the independent laboratory selects the lots for which it performs or directly supervises the operational tests.

(i) The operational test performed or directly supervised by the independent laboratory must be done at least once during each quarterly period, unless no lots are produced during that period.

(j) The independent laboratory, when it performs or directly supervises the technical tests required by paragraph (c) or (d) of this section, must inspect the signals selected for testing and compare them with the approved plans. Each signal inspected must conform to the plans.

§ 160.066–18 Listed independent laboratories.

(a) The following are independent laboratories acceptable to the Commandant for approval and production testing under this subpart:

(Independent laboratories will be listed in this section as they are accepted by the Commandant.)

Subpart 160.072—Distress Signals for Boats, Orange Flag

Sec.
160.072–1 Applicability.
160.072–3 General performance requirements.
160.072–5 Accelerated weathering test.
160.072–7 Labeling.
160.072–9 Manufacturer certification.
160.072–10 Manufacturer notification.

AUTHORITY: Sec. 5, 85 Stat. 215; (46 U.S.C. 1454); 49 CFR 1.46(n)(1).

Subpart 160.072—Distress Signals for Boats, Orange Flag

§ 160.072–1 Applicability.

(a) This subpart establishes standards for distress flags for boats.

§ 160.072–3 General performance requirements.

(a) Each flag must:

(1) Be a square or rectangle at least 90 cm (36 inches) wide and at least 90 cm (36 inches) long. If the flag is a rectangle, the shorter side cannot be less than ⅔ the length of the longer side;

(2) Have no less than 70 percent of the total area colored Indian orange as specified in § 160.002-3(b);

(3) Display a black disc and a black square on the orange background arranged as follows:

(i) The diameter of the disc and the length of one side of the square shall be equal, and shall each be ⅓ of the length of the longest side of the flag, or 30 cm (12 inches), whichever is greater;

(ii) The disc and square must be centered on one axis of the flag parallel to the longest side of the flag as shown in Figure 160.072-3. If the flag is a square, the axis may be parallel to any side.

(iii) The disc and square shall be separated by a distance of ⅙ the length of the longest side of the flag or 15 cm (6 inches), whichever is greater;

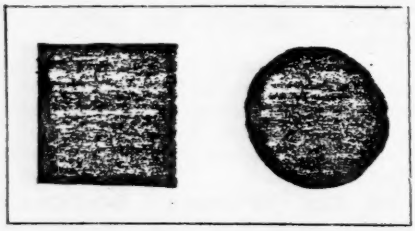

Figure 160.072-3

(4) Be constructed of material capable of withstanding the accelerated weathering test in § 160.072-5 without visible signs of fading or rot over more than 3 percent of the flag surface;

(5) Have reinforced corners, each with a grommet, capable of withstanding the accelerated weathering test in § 160.072-5 without visible signs of corrosion; and

(6) Have four pieces of line—

(i) Each at least 30 cm (12 inches) long with a minimum diameter of 10 mm,

(ii) With a tensile strength of at least 115N (25 lbs.),

(iii) Capable of passing through the grommets freely, and,

(iv) Capable of withstanding the accelerated weathering test in § 160.072-5 with no more than a 5-percent decrease in tensile strength.

§ 160.072–5 Accelerated weathering test.

(a) Under ultraviolet light, subject the material to alternate 3-minute cycles of 20-percent salt spray at 55 degrees C and an air blast of 40 knots at 55 degrees C without interruption for a period of 200 hours. Metallic parts shall be free of paint or other finish during this test.

§ 160.072–7 Labeling.

(a) Each distress flag must be legibly and indelibly marked with:

(1) The manufacturer's name; and

(2) The following words and symbols—

"Day Visual Distress Signal for Boats. Complies with U.S. Coast Guard Requirements. For Emergency Use Only".

§ 160.072–9 Manufacturer Certification.

(a) Each distress flag intended as a Day Visual Distress Signal required by 33 CFR Part 175 must be certified by the manufacturer as complying with the requirements of this subpart.

(b) Each distress flag must be accompanied by a certification statement containing:

(1) The manufacturer's name, and address, and;

(2) The following words—

"This flag complies with the requirements of 46 CFR Subpart 160.072. Acceptable as a Day Visual Distress Signal for Boats required by 33 CFR 175.110".

§ 160.072–10 Manufacturer notification.

(a) Each manufacturer certifying flags in accordance with the specifications of this subpart must send written notice to the Commandant (G-BBT), U.S. Coast Guard, Washington, D.C. 20590 within 30 days after first certifying them, and send a new notice every five years thereafter as long as it certifies flags.

Subpart 161.013—Electric Distress Light for Boats

Sec.
161.013–1 Applicability.
161.013–3 General performance requirements.
161.013–5 Intensity requirements.
161.013–7 Signal requirements.
161.013–9 Independent power source.
161.013–11 Incandescent lights.
161.013–12 Manufacturer testing.
161.013–13 Labels.
161.013–15 Manufacturer certification.
161.013–17 Manufacturer notification.

AUTHORITY: Sec. 5, 85 Stat. 215; (46 U.S.C. 1454); 49 CFR 1.46(n)(1).

Subpart 161.013—Electric Distress Light for Boats

§ 161.013–1 Applicability.

(a) This subpart establishes standards for electric distress lights for boats.

§ 161.013–3 General performance requirements.

(a) Each electric light must:

(1) Emit a white light which meets the intensity requirements of § 161.013-5;

(2) Be capable of manual or automatic signaling in a manner which meets the requirements of § 161.013-7;

(3) Contain an independent power source which meets the requirements of § 161.013-9;

(4) Float with the lens up;

(5) Be equipped with a waterproof switch; and

(b) Meet the requirement of paragraphs (a) (1) through (4) of this section after submersion in water for at least 72 hours.

§ 161.013–5 Intensity requirements.

(a) If an electric light emits light over an arc of the horizon of 360 degrees:

(1) The light's focal plane must be at the horizon;

(2) The light's peak intensity, measured 10 feet from the outer lens surface, must be at least 350 candela; and

(3) The light's minimum intensity, measured 10 feet from the outer lens surface and 9 inches perpendicular to the focal plane containing the peak intensity, must be at least 50 candela.

(b) If an electric light emits a directional beam of light, the light, measured 10 feet from the outer lens surface along the axis of the beam, must:

(1) Illuminate an area at least 18 inches in diameter measured perpendicular to the axis of the beam;

(2) Have an intensity of no less than 50 candela at any point within the area defined by paragraph (a)(1) of this section; and

(3) Have one point within the area defined by paragraph (a)(1) of this section where the intensity is at least 5,000 candela.

§ 161.013–7 Signal requirements.

(a) If an electric light signals automatically it must have a flash characteristic of the International Morse Code for S-O-S and;

(1) Each short flash must have a duration of ⅓ second;

(2) Each long flash must have a duration of 1 second;

(3) The dark period between each short flash must have a duration of ⅓ second;

(4) The dark period between each long flash must have a duration of 1 second;

(5) The dark period between each letter must have a duration of 2 seconds; and

(6) The dark period between each S-O-S signal must have a duration of 3 seconds.

(b) If an electric light does not signal automatically it must be equipped with a switch capable of manually signaling the flash characteristic of the International Morse Code for S-O-S as described in paragraph (a) of this section.

§ 161.013-9 Independent power source.

(a) Each independent power source must be capable of powering the light so that it meets the requirements of § 161.013-3(a) (1) and (2) after 8 hours of continuous use.

(b) If the independent power source is rechargeable, it must have a waterproof recharger designed for marine use.

(c) If the independent power source requires external water to form an electrolyte, it must operate in sea water and fresh water.

§ 161.013-11 Incandescent lights.

(a) Each manufacturer must test a prototype light identical to the lights to be certified prior to the labeling required by § 161.013-13.

(b) If the prototype light fails to meet any of the general performance requirements of § 161.013-3 the lights must not be certified under this subpart.

(c) Each manufacturer must:

(1) Forward the test results within 30 days to the Commandant (G-BBT), U.S. Coast Guard, Washington, D.C. 20590; and

(2) Retain records of the test results for at least 5 years, or as long as the light is manufactured and certified, whichever is longer.

§ 161.013-13 Labels.

(a) Each electric light must be legibly and indelibly marked with:

(1) The manufacturer's name;

(2) Replacement battery type;

(3) Lamp size; and

(4) The following words and symbols—

"Night Visual Distress Signal for Boats Complies with U.S. Coast Guard Requirements. International Code for Distress S-O-S (... ---...) For Emergency Use Only."

(b) If an electric light is designed for use with dry cell batteries the label must contain the following additional words: "Signal most effective when batteries have not passed expiration date".

§ 161.013-15 Manufacturer certification.

(a) Each electric light intended as a Night Visual Distress Signal required by 33 CFR Part 175 must be certified by the manufacturer as complying with the requirements of this subpart.

(b) Each electric light must be accompanied by a certification statement containing:

(1) The manufacturer's name, and address; and

(2) The following words, "This light complies with the requirements of 46 CFR Subpart 161.013. Acceptable as a Night Visual Distress Signal for Boats required by 33 CFR 175.110".

§ 161.013-17 Manufacturer notification.

(a) Each manufacturer certifying lights in accordance with the specifications of this subpart must send written notice to the Commandant (G-BBT), U.S. Coast Guard, Washington, D.C. 20590 within 30 days after first certifying them, and send a new notice every 5 years thereafter as long as it certifies lights.

(Sec. 5, 85 Stat. 215; (46 U.S.C. 1454); 49 CFR 1.46(n)(1).)

NOTE.—The Coast Guard has determined that this document does not contain a major proposal requiring preparation of an Economic Impact Statement under Executive Order 11821, as amended and OMB Circular A-107.

Dated: October 11, 1978.

J. B. HAYES,
Admiral, U.S. Coast Guard
Commandant.

[FR Doc. 78-29480 Filed 10-20-78; 8:45 am]

[4910-14-M]

[33 CFR Part 175]

[CGD 76-183]

VISUAL DISTRESS SIGNALS ON BOATS

Reopen of Comment Period on Proposed Rules.

AGENCY: U.S. Coast Guard, DOT.

ACTION: Reopen comment period for proposed rules.

SUMMARY: The Coast Guard published a proposed rule (CGD 76-183), in the FEDERAL REGISTER of April 10, 1978 (43 FR 15118), that would require some recreational boats to carry Coast Guard-approved visual distress signals. The comment period on CGD 76-183 ended on August 8, 1978. The preamble to CGD 76-183 noted that associated proposals concerning Coast Guard approval specifications for visual distress signals would be published in a future issue of the FEDERAL REGISTER. Those proposals appear in this issue of the FEDERAL REGISTER in CGD 76-183a, CGD 76-048a, CGD 76-048b, and CGD 76-048. The comment period on CGD 78-183 is reopened so that interested persons may comment further on the carriage requirements in light of the associated proposals concerning approval specifications. The comment period for all five proposals (CGD 76-183, CGD 76-183a, CGD 76-048a, CGD 76-048b, and CGD 76-048), will run concurrently and close on December 22, 1978.

DATES: As explained above, comments must be received on or before December 22, 1978.

ADDRESSES: As explained in the notice of proposed rulemaking published on April 10, 1978, written comments should be submitted to Commandant (G-CMC/81), U.S. Coast Guard, Washington, D.C. 20590.

FOR FURTHER INFORMATION CONTACT:

Mr. David Gauthier, U.S. Coast Guard, Office of Boating Safety (G-BLC), Room 4308, Department of Transportation, Trans Point Building, 2100 Second Street SW., Washington, D.C. 20590, 202-426-4176.

DRAFTING INFORMATION

The principal persons involved in drafting this proposal are: Mr. David Gauthier, Project Manager, Office of Boating Safety, and Lt. Steven Karavitis, Project Attorney, Office of the Chief Counsel.

(Sec. 5, 85 Stat. 215; (46 U.S.C. 1454); 49 CFR 1.46(n)(1).)

Dated: October 11, 1978.

J. B. HAYES,
Admiral, U.S. Coast Guard
Commandant.

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